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A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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ond-class matter.]

BALTIMORE, SEPTEMBER 6, 1906.

BUT, ANYTHING TO CATCH THE CROWD.

By 1916 Col. William J. Bryan, a victim of circumstances beyond his control, may, in belated obituary remarks as to the "government ownership of railroads," reasonably be expected to say, as in the case of "free silver," that unexpected and unprecedented "conditions have removed the cause of discord and dissension," unless in the meantime divers non-partisan giants of Wall Street have, with the assistance of the Colonel, honeyfugled the government, that is to say, in plain English, the taxpaying people of the United States, into buying the railroads at a price so inflated that it will give the giants at once greater profit than they could derive from operating the railroads from Wall Street for 100 years.

A REFORM CANARD.

In some irresponsible mind has germinated the base suggestion that the interest of half a dozen dictionary-makers in the simplified spelling reform movement rests upon their understanding that the reform will mean a retiring from use of the present standard dictionaries, which have cost the people millions and millions of dollars, and the consequent sale of millions and millions of Roosevelt-Carnegieized dictionaries, textbooks and revised versions of classic works, including the Bible. The insinuation is absolutely blind to the fact that simplified spelling is really the greatest bit of philanthropy essayed under the auspices of Andrew Carnegie's accumulations. Discovery of the exceptional man through the Carnegie Institution,

placing a perpetual mortgage upon a city's resources by means of a Carnegie "free" library, rescuing heroism from obscurity or paralyzing by means of professorial pensions the self-respect of college corporations cannot hold a candle to the blessings that will come to mankind through simplified spelling. The success of that reform, though apparent contradiction may be given in an act of impetuosity eternally cultivating the limelight, means a vindication of the inalienable right of every man to spell as he chooses. That, of course, means disuse of all dictionaries. Therefore, the sanction given by dictionary-makers to the reform is an unprecedented manifestation of disinterested self-sacrificing altruism.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 86, 87 and 88.

NATIONAL BANKS SOUTH.

Between March 14, 1900, when the act went into effect permitting the organization of national banks with capital less than \$50,000, and August 31, 1906, there have been organized in the United States 3085 national banks with a capital of \$177,258,300. Of these 810, or 26 per cent. of the total, with an aggregate capital of \$45,230,500, or 25.5 per cent. of the total, are in the South, the number by States being shown in the following table:

States.	Number.	Capital.
Alabama.....	58	\$2,952,500
Arkansas.....	28	1,720,000
District of Columbia.....	3	850,000
Florida.....	23	2,650,000
Georgia.....	52	2,905,000
Kentucky.....	61	4,195,000
Louisiana.....	23	2,685,000
Maryland.....	31	1,427,000
Mississippi.....	15	1,455,000
North Carolina.....	25	1,100,000
South Carolina.....	12	1,210,000
Tennessee.....	30	1,780,000
Texas.....	338	14,570,000
Virginia.....	55	2,876,000
West Virginia.....	56	2,955,000
Total South.....	810	\$45,230,500
Total United States.....	3085	177,258,300

Texas led in the number of new organizations, 338, and in the amount of aggregate capital, \$14,570,000, with Kentucky second in number, 61, and in capital, \$4,195,000; Alabama third in number, 58, but fourth in capital, \$2,952,500; West Virginia fourth in number, 56, and third in capital, \$2,955,000; Virginia fifth in number, 55, and in capital, \$2,876,000, and Georgia sixth in number, 52, and in capital, \$2,805,000. Variations in the other Southern States are indicated by the fact that while the 23 new national banks of Florida have an aggregate capital of \$2,650,000, the 28 of Arkansas have \$1,720,000 capital, and while the 30 of Tennessee have \$1,780,000 capital, the 31 of Maryland have \$1,427,000 of capital.

Of the new banks in the United States, 2018, or more than 65 per cent. of the total, with an aggregate capital of \$52,625,500, or nearly 30 per cent. of the total new capital, are banks of capital less than \$50,000, while the 494 new banks of the South, or nearly 61 per

cent. of the total new ones in that section, having an aggregate capital of \$13,215,500, or nearly 20 per cent. of the aggregate new capital of that section, are banks with individual capital less than \$50,000.

TECHNICAL EDUCATION.

Referring on another page of this issue of the MANUFACTURERS' RECORD to the notable industrial advance of the South during the past century, Mr. L. S. Randolph, professor of mechanical engineering at the Virginia Polytechnic Institute, Blacksburg, insists that unless steps are taken for adequate training of young men in engineering and in the mechanic arts in the South they must see pass to others the wonderful opportunities for sharing in the South's future development. He notes that the technical schools of the South are not even supplying half of the annual loss in the profession of civil, mechanical, electrical and mining engineering in the South, to say nothing of adding to the number to meet the steadily-increasing calls, and that for every engineer educated in the South 15 engineers come from other parts of the country. He argues that the technical schools of the South have such an imperfect and inadequate equipment that the majority of the technical graduates seek employment in Northern and Western manufacturing establishments in order to gain a thorough training. He contends that the South is naturally capable of supplying the young men to become superintendents, engineers and managers in cotton mills, power-development plants, railway and machine shops, etc., and his paper is an exceedingly practical argument and an urgent one that the technical schools of the South be given a far greater and much more substantial support in every way than they are now receiving. The Virginia Polytechnic Institute, in the well-directed fidelity and enthusiasm of its administrative forces and in the earnestness and determination of its students, is an illustration of a spirit for technical training all over the South which, if adequately seconded by public support, would work a gratifying revolution of the South within 10 years.

TO GAIN ENGLISH SETTLERS.

The visits of representatives of Southern States during the summer to Great Britain in the interest of immigration have fastened attention upon that country as a possible source of supply for workers in Southern agriculture and industry. It is believed that the right sort of work done in Great Britain by men qualified to speak for the Southern States will have gratifying results. But it must be work, and the character of the work to be done is suggested in an article on another page of this issue of the MANUFACTURERS' RECORD written from the English viewpoint and setting forth the difficulties which must be overcome.

MISTAKES OF PRESIDENT JAMES J. HILL.

Putting the cart before the horse, Mr. J. J. Hill, president of the Great Northern Railroad, in an address last Monday which has attracted wide attention, made some very interesting statements, many of which are quite incorrect. Mr. Hill is one of the world's great railroad men, possibly the greatest, but when it comes to a discussion of the economic development of America, to which this address is devoted, it may be broadly said that "his new things are not true things and his true things are not new things."

Taking up the question of the industrial development of America as founded on coal and iron, he undertakes to prove that this is being done at the expense of the farming interests and draws a gloomy picture of the conditions which will prevail in 1950, or 44 years hence, when our population, according to his estimate, will be 200,000,000 people. Mr. Hill bemoans the trend of the people away from the farms to city life brought about by industrial development, and says:

We should be able, by directing surplus population to the land and by the adoption of a system of culture in full operation elsewhere, greatly to increase this minimum present yield of \$5,000,000,000 per annum of farm products; that is, we may add \$10,000,000,000 or \$15,000,000,000 every year to the national wealth if we so chose. And this is but a beginning.

Apparently he entirely overlooks the fact that the trend of population from the country to the city has come about by reason of changed conditions due to the development of the steam-engine age, in which the laboring man could secure better wages in industrial than in farm work. With the opening up of the vast prairies of the West through the building of the great railroad systems built largely by the aid of land grants, agricultural development for a time went ahead so rapidly that it resulted in almost a complete breakdown of prices of farm products. Agriculture became so unprofitable that thousands of small farmers as well as day laborers on the farm found it far more profitable to enter city life and make a living in industrial pursuits, in railroad work or other forms of employment. This change was due to the operation of natural laws, and when the industrial development of the country has proceeded to a point where the number of farm-product consumers becomes so great as to largely increase the value of farm products, then the inevitable trend will be back to the farm, because farming will then become as profitable as employment in industrial operations. To rail against the working out of a perfectly natural law such as this shows that Mr. Hill is starting at the wrong end and arguing from the wrong point of view. Already we see a tendency towards better prices for agricultural products, and just as rapidly as farming becomes more profitable there will be a return to the farm to a sufficient extent to provide ample food.

stuffs for a vast increase in population.

When Mr. Hill talks about our ability to increase the minimum yield of farm products from \$5,000,000,000 to \$15,000,000,000 or \$20,000,000,000 he creates an entirely erroneous impression upon those who do not stop to investigate. It is quite true that the time will come when intensive farming and the improvement of the soil, which has been skinned of much of its fertility by the method of cultivation due to the opening up of a new country, will enable us to double and quadruple the value of our farm products. But if by some means we should within five years double the total output of farm products we would find all the farmers of America bankrupt, because prices would be forced far below the cost of production. In 1898, for instance, the South raised 11,200,000 bales of cotton and sold it for \$282,000,000, losing on every bale, and at the end of the season the farmers were poorer than at the beginning. Since then crops more in keeping with the world's demand have been selling for \$600,000,000 a year, and the Southern farmer is growing rich not on the increased output of cotton, but on the increased value of cotton. The grain-growers of America, who are now producing in round figures, say, 750,000,000 bushels of wheat and 2,800,000,000 bushels of corn, would be very glad to see prices sufficiently increased to add some hundreds of millions of dollars to the value of their product, but if, instead of the amount of wheat and corn that they raised this year, they had by some untoward condition produced 1,500,000,000 bushels of wheat and 5,000,000,000 bushels of corn, they would hardly have been able to sell their grain for enough to pay freight to the markets and the year would have ended with disastrous poverty among the wheat and corn growers of the country.

With the development of industrial employment following the great increase in our population there should come a gradual increase in the demand for wheat and corn and cotton, which will make farming so profitable as to draw back from city life many thousands who have for many years past found it necessary to abandon farming in order to make a living. When Mr. Hill pessimistically draws so gloomy a picture of the future he shows that he has not given the same careful study to this subject that he has to the operation of railroads. As to the future of American farming he need have no worry. A new country has been rushing with tremendous energy at the tasks which for the time being yielded the largest profits. When prior to the war cotton-growing offered a more inviting field for energy and capital than industrial pursuits, the whole activity of the South, which in early days had been so largely centered in industrial life, turned to cotton and brought about a development in that as marvelous as was the creation of the manufacturing interests of New England. But when overproduction caused cotton to sell at five and six cents a pound the South promptly turned again to industrial life and began the great upbuilding of its matchless resources. When the virgin prairies of the West beckoned to the people of the world there was a mighty rush of population, but when wheat and corn growing and cattle-raising became unprofitable the people of that section turned from wheat and corn and cattle to other pursuits. And so it ever will be. Against the operation of such natural laws in the business world it would

be as foolish to fight as against the movement of the tides.

But in this speech, so forcibly put as to almost carry conviction simply by its charm of expression, there are other statements radically wrong. Discussing the supply of coal, he says:

The coal areas and measures of the United States are describable only in somewhat general terms, but the fact of the future is not doubtful. No dependable authority gives more than a century of life to our main available coal supply. It will not be all gone by that time, but the remainder will have to be obtained from the deposits of low grade or at great depths or from points remote from where it is most needed. It will be poor in quality or high in price, so that its economic employment on existing terms will be very difficult. * * * It is certainly a moderate statement to say that by the middle of the present century, when our population will have reached the 200,000,000 mark, our best and most convenient coal will have been so far consumed that the remainder can only be applied to present uses at an enhanced cost, which will probably compel the entire rearrangement of industries and revolutionize the common lot and common life.

The total bituminous coal output of the United States is now less than 300,000,000 tons a year. If we increase this, as we shall very probably do in the next quarter of a century, to 1,000,000,000 tons a year, the South, without going into very deep mining, would be able to supply such an output for nearly 200 years. The South has over 62,000 square miles of coal land, or, in round figures, about 40,000,000 acres. Most of this land is underlaid with from two to three or four veins, and on a large part of it the available coal mining on different veins would run to an average of 10,000 to 15,000 tons per acre, but taking only the upper veins, it is very safe to give the South 5000 tons per acre, or 200,000,000,000 tons. But the South has less than one-fifth of the coal area of the United States. It is true that coal lands will enhance in value just as iron-ore properties, because both have been entirely too cheap, and their value in the South must advance to somewhat of a parity with the high prices of the coal lands of Pennsylvania and the ore lands of the Lake Superior district. In that advance there is the making of fortunes such as were made in Pennsylvania and the Lake Superior country. But this does not in any way militate against the almost limitless supply of coal for future expansion of industry.

Moreover, there is every year a growing development in the use of electricity. Millions and millions of unutilized water-powers are available for the generation of power. Even in the South today there are under development water-powers to the extent of at least 500,000 horse-power for electrical transmission, and there is available for the future a good many times that amount. In the West, in New England and on the Pacific coast the same conditions prevail, and vast as will be the expansion of the coal industry, the utilization of water-powers for electrical transmission will furnish an almost limitless field of expansion and to that extent lessen what would be the insatiable demand of the future for coal.

Turning from coal to iron ore, Mr. Hill is probably somewhat more nearly correct. On this he says:

In the year 1950, so far as our own resources are concerned, we will approach an ironless age. For a population of 200,000,000 people our home supply of iron will have retreated almost to the company of the precious metals. There is no substitute whose production and preparation for practical use is not far more expensive. Not merely our manufacturing industries, but our whole complex industrial life, so intimately built upon cheap iron and coal, will feel the strain and must suffer realignment. The peril is

not one of remote geologic times, but of this generation. And where is there a sign of preparation for it?

What sign does Mr. Hill demand? Must we stop producing iron and steel despite the demand for it? Must we say to the Great Northern Railroad, as well as to other roads, you shall not build new mileage; if you want 100,000 tons of rails you can have only 25,000 tons, for we must husband our resources, as, according to your own statement, we are using up our iron ore too rapidly; or shall we say to Mr. Hill, "based on your statement that in less than fifty years we shall reach a condition of iron famine, we who own the iron and steel industry of the country will lessen the consumption by demanding double the price? In view of your statement we feel compelled to charge you \$56 a ton for your rails instead of \$28, and you are fortunate in getting them at that price."

How utterly absurd for a great business man to present such an argument! It is true that the consumption of iron and steel is proceeding at such a startling rate as to give some serious concern to those studying the future as to the available supply, but how absurd to suppose that human nature will refuse to sell iron and steel, refuse to meet the present demands and check all industrial advancement by withholding from the railroads and others who need these metals the iron and steel without which industrial activity would halt. But is it true that within fifty years this country will see an iron famine? It is quite true that in less than fifty years we shall probably consume more ore than all the present known available supply. It is estimated that in the Lake Superior district there is an available supply of about 1,000,000,000 tons. It is quite certain that Alabama has as much. These two great centers of iron ore—the strongholds of American iron and steel business—have marvelous advantages, and every ton of available ore in these districts will doubtless increase in value. But it would be a very rash prophet who would say that no other great sources of supply are yet to be found. This country has been but very slightly explored. There are vast stretches of mountain regions of which we know but little, and even in the best-known iron-ore regions new discoveries are being made of great extent. In addition to the known available supply of what may be called high-grade ore in the Lake Superior district and the central South, there are vast supplies of low-grade ores heretofore counted of comparatively little value, but with Germany profitably using ores averaging 25 per cent. of iron and Great Britain using ores averaging 30 per cent. we may look forward to the time when the use of our great supplies of low-grade ores will come about. Before then the best available high-grade ores will either have been utilized at an ever-advancing price or be held for investment by those who appreciate the importance of iron ores. It is well known that in other parts of the South there are also enormous supplies of ores as yet utilized to but a little extent, and many great bodies not yet at all developed. It is likewise known that in the central South and in the far West and in Mexico there are vast stores of available ores upon which the iron and steel industry of this country may in the future draw. Mr. Hill seems pessimistic, but it is a little difficult to find out whether he would have us stop producing iron and steel sufficient for the country's needs, or whether he would

have us lessen the consumption by a great increase in price, or whether he would seek to double farm production before there is a consumptive demand sufficient to justify it, or whether, without regard to the consuming population, he would so increase agricultural productions as to bring them below the cost of growing. Calculated as his exceedingly interesting talk was to impress his audience, we may justly repeat that "his new things are not true things and his true things are not new things."

RAILWAYS SAFE, HOW LONG?

The New York *Herald* discovers that the railways are safe, in spite of amendments to the interstate commerce act, and says:

The railway rate law became operative this week, but the roads seem to be doing pretty well, thank you. There is no indication of any of the dreadful things that the corporation attorneys assured us would follow if Congress passed the law. Trains are running regularly, the volume of freight is larger than ever, railway shares are higher, and the recent increase in dividends suggests that the men who control the great systems are not expecting immediate disaster.

Why should the railways not be safe for the time being under the operation of the act as amended? What influences are better acquainted with the origin and the development of the maneuvers attending railway rate legislation at the recent session of Congress from the time the Hepburn bill was introduced in the House of Representatives to the moment when the act, so different from the original measure, but still popularly known as the Hepburn bill, became law? Does the New York *Herald* really believe that the essential amendments of the interstate commerce act are antagonistic to the interests of the railway? Is it unaware that two or three measures passed at the same session of Congress, on the eve of a congressional election, ostensibly and superficially in response to what is the "popular sentiment" of the moment, were in reality beneficial to the important American interests that were represented as bitterly opposing them?

In "popular" legislation nothing is better promotive of measures for the benefit of interests antagonized by "popular sentiment" than the creation of an impression upon what passes for the popular mind that the beneficiary interests are fiercely opposing the particular measures. It is easy to work that sort of a game at Washington. Even senators and representatives living, moving and having their being in "popular sentiment" may be used as effective pawns in the game.

The railroads are to be congratulated upon having emerged in safety from the struggle in which they were made the special targets of "popular sentiment." Nevertheless, any man not an opportunist and knowing that popular sentiment, however honest, is frequently traveling in the wrong direction on the right trail, may question the soundness of the basis for self-congratulation on the part of the railways and other substantial interests of the country assailed in the intent of the legislation. Whether or not such intent was thwarted is of minor importance for the long run. The main question to be considered is the danger in flatly recognizing or compromising with the theory that the general government, organized upon the principle of assuring deliberation and conservatism in the progress of the country towards social and political ideals, is to blink constitutional limitations and to hold what passes tem-

porarily for "public sentiment" as the real controller of government action. Danger in precedents is the thing to have constantly in mind. Pretending to yield in legislation to "public sentiment," even though its purpose may be nullified, can only encourage the growth of conviction that "public sentiment" should be the dominant power in settling problems requiring the wisest sort of wisdom and the most unselfish kind of patriotism, and, in thus encouraging, give it ultimately a status where it shall actually dominate. Then, destruction to vast interests dependent upon conservative reason in government for their stability and usefulness.

One of the most skillful performers upon the strings of "public opinion" said something to the effect that you may fool some of the people all the time, you may fool all of the people some time, but you cannot fool all of the people all the time. That axiom should never be forgotten by legislators or by individuals or interests seeking to influence legislation.

CHICKENS OF SOCIAL AGITATION COMING HOME TO ROOST.

Edwin Markham, he of "The Man With the Hoe," comes in at the tail end of the "child-labor" agitation and shrieks to the women of America to "Arise, unite and resolve in a great passion of righteousness to save the children of the nation." Of course, as all his kind, he dwells especially upon "child labor" in Southern cotton mills, and seems to depend for his impulse upon writers as sadly uninformed as he is himself, and, in the exigencies of a political campaign, the *Montgomery Advertiser*, evidently sharing Edwin's ignorance of the fact that women's clubs are veering from sociologizing to simplified spelling, actually reprinted the stuff and says that "every man, woman and child in the State of Alabama should read every line of it and see if we cannot learn something from the barbarian, something from the peoples not called civilized."

Of course, the barbarian mentioned is not the author of the screed, "The Child at the Loom," which in its title indicates that he knows very little about what he is writing, but to a putative Indian chieftain whom he quotes as having regarded as the greatest wonder in New York, "little children working." That must have happened long before poets, dreamers and romancers as exponents of sociology began to work in the New York magazines, and before the "National Child Labor Committee" of New York city, whose real financial backers have never been revealed, began to emphasize the fact that negro "children" were not employed in Southern cotton mills and to do its best to reduce the opportunities for white "children" to escape, through employment in the mills, an existence of half starvation, lack of chance for proper education and isolation from religious and other uplifting influences.

Be that as it may, anybody taking the trouble to wade through the mass of words unreeled by Edwin will be amazed at its scanty sprinkling of facts. To be sure, it is cruel to attempt to bridle either a poet or an orator with facts, but when a poet undertakes to demoralize the textile industry by putting children to the loom at which they never work, their work, where it has to do with machinery at all, being confined to spindles, certain statements made by him under the sincere delusion that the individuals whom he quotes are authorities are likely to be combatted by

the well informed. For instance, Edwin asserts:

Eighty thousand children, mostly girls, are at work in the textile mills of the United States. The South, the center of the cotton industry, happens to have the bad eminence of being the leader in this social infamy. * * * Fifty thousand children, mostly girls, are in the textile mills of the South.

As a matter of fact, the census figures, which do not deal in poetry, but not infrequently are used by the enthusiastic but ignorant as a basis for their poems, show that between 1900 and 1905, while the number of persons, black and white, employed in manufacturing industries in the South increased from 724,865 to 863,379, or by 138,514, equal to 19.1 per cent., the number of "children," that is, persons under 16 years of age, the greater number of whom ought to be at work if they ever expect to be anything but professional and salaried "philanthropists," sociologizers, or undisguised vagrants, increased from 46,607 to 51,236, or by 4629, equal to 9.9 per cent. Of these 51,236 "children," black and white, hardly 62 per cent. were in the textile industry. Including in that the cotton and woolen mills, knit-goods plants and cordage and twine factories, the figures of the 1905 census, with those for Georgia and Arkansas estimated, show a total of 31,538 "children" under 16 years of age employed in Southern textile mills, the figures by States being South Carolina 9096, North Carolina 9141, Georgia 5836, Alabama 3257, Maryland 985, Tennessee 1121, Virginia 776, Mississippi 556, Texas 205, Kentucky 336, Louisiana 188, Arkansas 34 and West Virginia 7.

Consideration of the difference between 32,000 and 50,000 "children" in Southern textile mills, the difference between the census figures for 1905 and Edwin's figures in 1906, suggests that he may have been led into other errors in the course of his rhetoric.

Has he, indeed, ever studied the operations of a cotton mill? Has he ever compared the children in the average mill with the children in the average public school of New York as to size, general healthfulness and promise of usefulness? If he has made such a study, which ought to be precedent to any agitation intended to be of value to the children of the mills, what does he mean by such phrases as:

Children are crowded into this limbo of the loom.

A spectral army of pigmy people sucked in from the hills to dance beside the crazing wheel.

The long end of the lash cuts red the backs of the little children.

Does Edwin know the difference between a loom and the spindle? Does he know that the only mill in the South where whipping may be done is a silk mill employing negro children under agreement that they may be whipped for dereliction of duty?

Again, the poet says:

"Rob us of child labor and we will take our mills from your State." This is a frequent threat of the mill owners in the chambers and lobbies of legislations.

Moving a cotton mill from one State to another is rather an expensive, not to say unattempted, undertaking. Most of the mills are built of heavy stone or brick, and the machinery has not yet been invented for transporting them any great distance.

How many chambers and lobbies of legislation in the South has Edwin ever visited? Did he ever hear a millowner threaten to take his mill from a State in the event of "child-labor" legislation? Is he acquainted with a single millowner? Has he not been misled by

the language of professional agitation against the cotton mills?

Edwin has another grievance. He says:

The church of the South, its steeples in the shadow of the mills, instead of hurling anathema against this treason to "the least of these," too often stands complacent, acquiescent, silent.

The church in the South being close to the mills and intimately acquainted with all the facts about them, as Edwin and others of his kind are not, probably huris no anathema because it knows that the "treason" is largely a matter of the imagination and because it has sufficient real evil in the world to deal with without giving countenance to the exploitation of imaginary ills, and because it knows that the cotton mills of the South have been and are among the greatest agencies there for the material, moral and religious welfare of hundreds of thousands of the population. Two or three of the clergy of the South who have joined the pack in its wild misleading howls against the mills have accomplished little beyond making a sorry spectacle of themselves, both as ministers of the gospel and as beings supposed to be reasonable and intelligent.

Edwin displays a lack of humor in taking seriously the remark of the putative Indian chieftain about "little children working." He ought to know that the Indian chieftain does not believe in anybody's working except squaws. Because the Indian has not produced a man with the hoe, is the reason why the Indian cannot stand up against civilization. But the Indian is a born orator, and in that, together with his contempt for productive labor and avoidance of it, he is a brother to sociologizers and salaried "philanthropists," who depend largely upon women for their living and whose propaganda, if successful, would lead humanity straight back to aboriginal inutility and stagnation.

There is a moral to be drawn from all of this. Some of the newspapers of the South, now denouncing in unmeasured language Edwin Markham's screed, have been rather close to "authorities" he seems to have depended upon for his inspiration, and in furtherance of "child-labor" legislation in their respective States have filled their columns with stuff having just as much foundation in fact as has his. Their incontinency, in fact, in a deluded hysterical agitation against the cotton mills, has made it profitable for sensational journalism to publish such stuff as that of Markham's. They should have known that their chickens would come home to roost.

Whatever of success has come to the "child-labor" campaign in the South "child-labor" campaign in the South—and the success is questionable from a moral as well as from other standpoints—rests upon the circulation of just such stuff as that belched forth by Markham. Men and women who have been paid salaries, directly or indirectly, in promotion of the campaign will, of course, not care that the South is awakening to the real significance of their movement. But the disinterested men and women who have countenanced the agitators and given them justification for drawing their pay must regret keenly the plight in which they now find themselves.

A REAL STATESMAN.

Within a few months will end the term of Governor William D. Jelks of Alabama. It will close one of the most notable gubernatorial careers of the

South. Governor Jelks has given Alabama an administration full of progress for his State on all lines. The State has grown in wealth, in increase in taxable values, in educational facilities, the burden of its bonded debt has been vastly reduced, and all without any oratory, without any playing to the galleries, without any hysterics of any kind and without any galloping over the country posing as this sort of a governor or that. Summarizing his achievements, the *Age-Herald* of Birmingham says:

If a Governor who does not pose as a great sage can bring about results like these—can put the State on its feet—it might be well to discard statesmen in the future and accept plain business men instead.

The *Age-Herald* is evidently satirical in its use of the word "statesmen" or is employing euphony for politicians or demagogues. During Governor Jelks' term more than one Southern State has, unfortunately, had a governor who has been called a statesman, but who has really been the rankest kind of demagogue. Governor Jelks, though, is an illustration of what the South can produce as material for governors, and one does not have to travel far from Alabama to run across some of them already in office. The South generally is turning from its demagogues and is selecting men of affairs for public office, and this tendency is so marked that any deviation from it is coming to be regarded as a black eye to a State.

"WITHIN ITS LEGAL RIGHTS."

In disposing of over 500,000 shares of the stock of the Baltimore & Ohio and the Norfolk & Western railroads, the Pennsylvania Railroad has issued a statement as follows:

The Pennsylvania Railroad Co. announces that it has sold a part of its holdings of Baltimore & Ohio and Norfolk & Western shares. These stocks were purchased some six years ago for the purpose of establishing such relations with the managements of those properties as would incline them to join the Pennsylvania Railroad Co. in an effort to do away with secret rebates and preferences, all of which was set forth in the annual report of the directors of the Pennsylvania Company to the shareholders in March, 1900.

The desired result having been fully realized, and the management entertaining no fears that the railroads of the country will ever fall back into the old practices, the directors of the company have thought it wise to reduce its ownership in these companies, which has been done by selling approximately one-half of its holdings in each to Messrs. Kuhn, Loeb & Co.

On account of the allegation, repeatedly made, that the company was seeking to control the tidewater bituminous coal trade, the directors have taken this action in deference to the present state of public opinion upon such matters, although there was no foundation for the charge and although it is confidently believed that the company was entirely within its legal rights in purchasing and holding these stocks.

In the last paragraph of this statement the Pennsylvania says:

It is confidently believed that the company was entirely within its legal rights in purchasing and holding these stocks.

The mistake that the Pennsylvania, as well as many other corporations, have made is to take the ground that because it is "within its legal rights" it is justified in any action, whatever it may be. To this unwise position is due a very large part of the anti-corporation and anti-railroad agitation of the day. The Pennsylvania Railroad believed that it was "within its legal rights" when it made such a bitter fight to keep the Gould system out of West Virginia, but in making that fight it antagonized the whole State of West Virginia. When the Pennsylvania Railroad desired to build a belt line around

Baltimore its officers were told that they could not secure the necessary franchises by the methods which were being employed. The MANUFACTURERS' RECORD expressed its opinion very strongly that Baltimore was making a great mistake in not meeting the Pennsylvania road on some fair basis by which the desired ends could be obtained. This belt line is practically a necessity to the city and to the railroad, and the fight against the Pennsylvania which prevented its securing the necessary franchises has resulted in great injury to the city by seriously delaying a vitally important undertaking. But both the city and the railroad were at fault. The railroad had acted "entirely within its legal rights" in the way in which it had treated Baltimore, but this treatment had developed a general sentiment here that the railroad had so long ignored the interests of the city that it had necessarily developed here a spirit of latent antagonism which was immediately aroused into open bitterness when the road undertook to secure additional rights. The Pennsylvania was doubtless "entirely within its legal rights" in its dealings with Baltimore and within its legal limits in the way in which it sought the desired franchises, but instead of having made friends here it had unnecessarily made enemies of a large part of the community.

For the magnificent work of the Pennsylvania Railroad in creating such a vast railroad system, for its daring enterprise in seeing and undertaking in advance of others to provide facilities to meet the doubling and quadrupling of the traffic of the country, the MANUFACTURERS' RECORD has the most profound appreciation. It has never hesitated to commend the Pennsylvania for being more farsighted in this respect than any other railroad in the country, at least for doing on so broad a scale what no other road had undertaken to do to the same extent. But the Pennsylvania made a great mistake in supposing that because it was "within its legal rights" in many things which it had done the public would look only on that side of the case, and not resent the spirit which undertook to dominate the great coal and iron regions of the country by a bitter fight against others who had the temerity to invade its field. Acts of this kind and others which created the impression of unfair dealing with the public by railroads in matters of transportation have helped to bring about a condition of irritation that has now developed into what may be called a mob spirit. This is running to the extreme. Conservatism and sanity have been thrown to the winds, and the best judgment of the best men of all parties and of all business interests is needed to lead the country out of this dangerous situation. But neither the Pennsylvania Railroad nor any other can escape its share of responsibility for this condition of affairs by claiming that it acted within the letter of the law.

EDUCATIONAL PHILANTHROPY WITH STRINGS.

In its issue of August 23 the MANUFACTURERS' RECORD told of a contract tendered to a denominational college in the South by the General Education Board, the financier of the Ogden Movement, which included the following conditions:

That no part of the income from the fund so contributed by this Board shall ever be used for specifically theological instruction. That the accredited representative of this Board shall at all reasonable times have the right to inspect the books, accounts and securities of said college.

These conditions were brought to the

direct attention of the denominational press of the South for the purpose of discovering their attitude towards the proposition as an indication of the state of health of a powerful influence in education. Portentous silence on the part of this influence prevails. But the daily press seems awake to the practical and ethical significance of the question. From the text, "Take no money with strings," the *News and Observer* of Raleigh, N. C., preaches the following little sermon:

The MANUFACTURERS' RECORD, which has waged long war upon the General Education Board, believes that the contributors wish to dominate the colleges to which they give money. It quotes Prof. W. O. Carver, Th.D., of Louisville, Ky., who, writing to the *Baptist Argus*, says: "They (the General Educational Board) now feel convinced that the denominational college is the best point of vantage for accomplishing their end. They do not seek to control, hamper, subsidize or despoil these colleges of anything worthy." The MANUFACTURERS' RECORD thinks it has evidence of a purpose that would indicate that the contributors do wish to "hamper." For illustrative purposes it says the General Education Board offered to give, say, \$35,000 to a certain college if the friends of the college would raise a supplemental fund of \$105,000. * * * No denominational college could afford to accept a single dollar under the first condition without sacrificing its character. No college, denominational or otherwise, wishing to preserve its independence could afford to accept a dollar under the second condition. Both combined make acceptance a degradation. The MANUFACTURERS' RECORD truly says that "such a contribution is not a gift—it is an irredeemable mortgage on the soul of any institution that accepts it." Better a thousand times that a college struggle along with poor equipment and heavy debt than to purchase equipment and financial ease by a loss of independence or by some agreement that puts a mortgage upon the soul of the institution. This is true whether it is a registered mortgage or a mortgage that is not of record. If by accepting money the college feels bound to be silenced about, let us say, the evils of the Standard Oil or the cigarette trust, or to defend the wrongs committed by this powerful illegal foe of fair play, then it has sold its birthright for a mess of pottage and virtue has gone out of it. Money that carries no obligation to condone evil or to be silenced in any way is a great blessing, but money that has such strings tied to it as the MANUFACTURERS' RECORD says are tied to certain gifts tendered by the General Education Board would prove a curse.

Bearing upon the same point, and from the text, "Whose bread I eat his song I sing," the *Observer* of Charlotte, N. C., says:

The Ogden educational movement has not been much to the front of late, but there are men who "do good by stealth," and the engineers of the movement may have been prosecuting their beneficent work—we will not say underground, for that might be offensive—on the quiet. An article in the last issue of the MANUFACTURERS' RECORD of Baltimore would seem to lend color to such a theory. * * * A denominational college which would set aside of its funds \$35,000, pledging itself to use no part of the income from it "for specifically theological instruction," would discredit the very object of its establishment and make of itself a by-word. What is the "certain college" to which this offer was made, with this condition and the other one that the gift is to entitle the general educational board to examine the books and exercise supervision of the financial affairs of the institution? Is it a North Carolina college? If so, which one? There may be no design, in this beneficent offer, to "control, hamper, subsidize or despoil," but there runs frequently through the South Carolina papers a quotation—the origin of which we do not know and the local application of which we do not understand—"Whose bread I eat his song I sing," and it is brought to mind with tremendous force in this connection.

There has been widely published a list of Southern colleges for which "the General Education Board has recently made conditional appropriation from the income of the John D. Rockefeller foundation of \$10,000,000."

Which of these institutions is ready to answer the Charlotte *Observer's* question as to the contract? The MANU-

FACTURERS' RECORD knows the name of one, at least, that accepted it.

DAMMING THE SAVANNAH.

A letter to Governor Heyward from Lieutenant-Colonel Daniel C. Kingman, United States engineers, suggests the probability that certain difficulties in the way of a proposed development for electrical power of certain stretches in the upper part of the Savannah river in South Carolina may be overcome. Colonel Kingman, while recognizing the prior right of navigation of the stream, writes:

"I do not see why, at moderate expense, arrangements might not be made at these dams to permit the passage of small vessels which can be used on the river; in fact, I think that the construction of locks and dams is an ideal method of improving rivers. It is in very general use in France, and I should be glad to see it established on all of our fresh-water streams. The navigation is greatly improved by dams, and the water-power developed by them can be used for industrial purposes without any inconvenience to navigation."

CEMENT FOR PANAMA.

It is estimated that for concrete construction in connection with the Panama canal there will be needed 125 carloads of cement a day for two years, a total of 91,250 carloads, but that two years must elapse before the cement will be needed. It is further stated at Washington that the greater part of this big contract may be given to foreign manufacturers. It is for the manufacturers of this country, with its unexcelled resources of the raw material for the manufacture of cement, to see to it that there may be no reason either in the character of the cement or in the facilities for transporting it promptly to the Isthmus for foreigners to capture the contract.

SOUTHERN COTTON CONSUMPTION

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, Southern cotton mills consumed during the year ended August 31 2,374,225 bales of cotton, an increase over the preceding year of 196,305 bales. The total commercial crop was 11,345,988 bales, a decrease under the preceding year of 2,219,897.

AUGUSTA'S POTTERY PROJECT.

A plan is being considered at Augusta for the establishment of a miniature pottery to cost about \$2000, which in actual operation will demonstrate the excellent quality of the clays in the neighborhood of Augusta with a view to developing the pottery industry there and a local trade in home products.

OUR PROLIFIC SOUTH.

[Wall Street Summary.]

If there is one advocate of Southern development and exploitation that is preeminently entitled to the gratitude of the "new South," it is the enterprising and persistent MANUFACTURERS' RECORD of Baltimore. It is, in fact, a handy weekly compendium of valuable statistics on the products, resources and possibilities of Dixieland. Carefully compiled and edited, its facts and figures are ever interesting, and should be of particular service and value to an investor.

Big Bakery for Norfolk.

A large baking establishment will be located in Norfolk, Va., by George O. Kolb of Philadelphia, who has visited the city and decided that the increasing population warrants such an enterprise. The plant will have a daily capacity of 30,000 loaves of bread, and will be so equipped that that output can be readily doubled when the demand requires it. Mr. Kolb will erect a three-story building 100 feet long by 60

feet wide in which to install the ovens and other equipment. There will also be built storage and delivery departments and a 35x35-foot stable for delivery wagons and horses. Contract for construction has been awarded to the Botts-Hayden Company of Norfolk.

Tennessee-Kentucky Oil Fields.

[Special Cor. Manufacturers' Record.]

Barboursville, Ky., September 3.

The reductions in crude oil prices early in August had no perceptible effect on drilling operations in the Kentucky-Tennessee fields during that month. The August record of completions equals that of the preceding month, while the new production aggregates considerably more than was produced in July.

Strikes in the Kentucky-Tennessee fields last month aggregated 36, with a new production averaging close to 40 barrels per well. Five non-producers were encountered, a smaller percentage proving failures than usual. All completions were in the high-grade fields, drilling in the low-grade divisions of Kentucky having been at a standstill during August. The average production of August strikes was greatly increased by the appearance of several 200 and 300-barrel gushers in various districts of lower Kentucky.

Early in August the Standard Oil Co. made two reductions in the prices of Kentucky-Tennessee oil. The better grade oil suffered a decline of four cents per barrel, which placed it at 87 cents, while the inferior oil declined two cents in the market, the present quotation being 60 cents. The Indian Refining Co., which purchases large quantities of crude oil in two or three Kentucky districts, issued quotations three cents higher than the Standard's, paying 90 cents for the better grade oil.

The average of 100,000 barrels monthly was maintained during the month just closed. Production was obtained from Wayne, Wolfe, Knox, Cumberland, Estill, Bath, Rowan, Floyd and Knott counties, Kentucky, and Fentress county, Tennessee. Some of the divisions show a declining production, but the loss is offset by increased production in other sections.

Some important work is now being started in various sections of the Kentucky field. The Standard Oil Co., through its branch, the New Domain, is reviving operations in Cumberland county. The first of a series of wells has been started in the Cumberland Bend section, and drilling will be pushed with vigor. In the Wayne county fields some large contracts have recently been made. The Kentucky Oil & Gas Co., Columbus, Ohio, has contracted for five wells in the Sinking division of Wayne county. Keeney & Cockrill, Middlesboro, Ky., are also drilling new wells in that section.

Key West Improvements.

[Special Cor. Manufacturers' Record.]

Key West, Fla., September 1.

Key West proposes to have artesian wells bored for water supply or to give a franchise to water-works builders. This important city now depends upon rain-water for drinking purposes. Mayor Geo. L. Babcock is determined that the city shall be on a sound financial basis, and an auditor recently employed has completed a statement which is a creditable report for Key West. The railroad to this point is rapidly being completed. The mayor is determined to have sewers in the winter, and it will pay to make offers at once on this line. For street paving brick has been proposed. The city has an old charter, but Mayor Babcock claims that as soon as capitalists in the North realize the true situation here he will have all the aid he needs in making the Cigar City one of the most modern in the South.

Charleston's Manufacturing Advantages.

[Special Correspondence Manufacturers' Record.]

Charleston, W. Va., September 4.

What advantages, natural and otherwise, Charleston offers to manufacturers in many lines has been signally emphasized during negotiations recently entered into with one of the most important enterprises of its kind the world contains. This is an old-established institution, known in every land, given the highest ratings as to capital and credit that are carried by the commercial agency reports, and so profitably operated in its present location that no intimation of a desire to secure another site has ever been received by anyone.

Nevertheless, the Chamber of Commerce and people of Charleston generally, feeling entirely certain of the advantages which would accrue through a removal to this city, sent a committee to the home of the institution with an invitation to make a complete investigation of conditions here, in the belief that the advantages would be so apparent and momentous that a refusal to accept the offer would be considered a business impossibility.

The committee carried authority to offer without cost a 40-acre tract of level bottom land, with river front on the Great Kanawha, but above the highest flood level, adjacent to the Chesapeake & Ohio main line, adjoining the present developed industrial section of Charleston, through which the electric car line is guaranteed to be extended. As natural gas is being furnished under contract for a term of years to some of the larger factories here at five cents a thousand, and the gas company has a stated policy of favorable disposition toward new and important factories, a similar rate was mentioned as one of the strong inducements to this concern. In order that there might be no capital tied up in expenses of removal and construction of new buildings, the financiers of the city offered to take bonds to the amount of \$200,000 or \$300,000, as was done in the case of the Kelly Axe Factory.

The significance of these propositions lies in the facts that the institution at present occupies more than an entire block of land in the heart of a city of on toward 200,000 population, this property having a value of something like \$500,000. Natural gas at five cents a thousand would mean a saving in present fuel bills in the boiler-rooms and forging departments of something like \$60,000 a year. With a newly-built factory, constructed on the best approved lines, there would be an efficiency and economy in management and operation which would be a telling factor in the dividend accounts. The difference in interest on the investment, taxes, etc., and the advantages in economical operation would add further tens of thousands, till, it is maintained, the total saving over present location would amount to nearly if not quite all of \$100,000 every year.

So on this showing the location in Charleston would mean a saving sufficient to pay for a model plant and all the costs of removal in five years or less, when the works would be operating "on velvet," and on what would be practically no investment at all for either ground or works would be earning \$100,000 a year more than it now earns on an investment in plant representing half a million.

How the institution, or any similar one, can afford to overlook or turn down such a proposition the Charlestonians can hardly see. But if deep-rooted intrenchment, business ties, home ties and social ties should outweigh these commercial advantages, Charleston will turn her attention to other big enterprises. To be sure, free sites will not last indefinitely, because there is only so much available land, and rich as Charleston is, there is a

limit to her ability to "digest" securities. But Charleston feels so secure in the certainty of her distinctive and individual advantages that she is disposed to "play her hand with the cards face out" and to challenge all comers to beat her if they can. Cheap gas, with a long-lived field; practically inexhaustible gas and steam coal right at hand that can be loaded from tipples on the river and floated in barges down to factory doors when, after a quarter or half a century, the gas does play out; a locked and dammed waterway, navigable practically the entire year; with three lines of railway and other building; with a population alive to the advantages of securing already established factories and willing to give them every encouragement—this is a combination of advantageous circumstances, Charlestonians point out, that gives this city a position unique and pre-eminent, a combination that will inevitably result in the upbuilding of an industrial center here of the most important sort.

That a signal move has been made in this direction already the census figures contained in Bulletin No. 44 of the Department of Commerce and Labor give proof. This bulletin shows that between 1900 and 1905 Charleston led all West Virginia cities in the percentage of increase in capital invested in industries, in wages paid and in value of products. In capital invested Charleston shows 154 per cent. increase; Wheeling, 48; Parkersburg, 40, and Huntington, 25. In wages paid, Charleston, 105 per cent. increase; Wheeling, 43; Parkersburg, 36; Huntington, 27. In value of products, Charleston, 116 per cent. increase; Wheeling, 54; Parkersburg, 21; Huntington, 21.

As a student of all that pertains to successful manufacture, particularly as regards the making of edged tools for cutting, there is perhaps no man in industrial pursuits who is better informed than Mr. W. C. Kelly, the head of the Kelly Axe Manufacturing Co., the largest institution of its kind in the world, making one-third of all the axes the world produces, and recently located in Charleston solely on account of the natural conditions existing here. The same conditions were the deciding factor in securing the removal to Charleston of the Baldwin Steel Works from Cold Spring-on-Hudson, and they are relied on to bring other industries here of various kinds.

In discussing the situation here and enumerating the advantages Charleston offers Mr. Kelly recently said to me:

"In times of great and universal prosperity, where a factory is located is not so important a matter as in times of depression. It is only ordinary wisdom on the part of the prudent manufacturer to look long ahead. While I believe in the principle of protection, at the same time I cannot deny that some of our 'infant' industries have grown into a very lusty manhood by this time, and in any event, whether I and other manufacturers favor it or no, the signs of the times indicate that some revision and reduction may be expected in tariff rates. It then behooves the manufacturer to see that he is so located as to be able to make and market his wares to the best advantage at all times and under all circumstances, and the time to seek that location is when times are good. After a period of depression he would be in no condition to move, and co-operation on the part of a community into which he might want to go would then be impossible.

"One of the important features to be taken into consideration in choosing a location for manufactories of bulky or weighty

goods is water transportation. It seems to me inevitable that government supervision of railway freight rates will become the established order, and that discrimination in favor of any particular locality will soon be a thing of the past. This gives the manufacturer located on a navigable waterway so great an advantage that it will force the big manufacturers to points on the waterways. It means the building of industrial centers along the navigable streams, and the manufacturer located in an interior city will be at so great a disadvantage that I don't see how he can profitably compete. No manufacturer is now safe who is compelled to rely solely on a railroad, and with future conditions which look to me to be inevitable it will be more than ever necessary for the manufacturer to be on a navigable stream. I look for an era of river improvement and canal construction giving us a greater waterway from the lakes to the Gulf. The locking and damming of the Ohio so as to give a nine-foot stage of water from Pittsburg to Cairo will proceed till the work is finished, and there will be a canal connecting the lakes and the Ohio, and very probably a canal between the lakes and the Mississippi, as well as improvements in the upper Mississippi, all in line with the evident tendency of the times toward improved water transportation in the interior.

"We here at Charleston are peculiarly blessed in that line. The Kanawha, locked and dammed from its mouth to the falls, is a sort of safe harbor at times when the Ohio is dangerous or not navigable at all on account of the ice. Our river, having its source far to the south, in North Carolina, has much warmer water than the Ohio, so boats are not in danger of damage from ice throughout the winter, and in summer the Kanawha water supply and system of locks and dams gives us navigation as far south as Cincinnati and Louisville at times when Pittsburg is cut off on account of low water. So Charleston, on the Kanawha, offers a river location good as any all the year round, and much better in time of trouble, while at the same time enabling a factory to locate in a coal and gas field that is without a peer in the world.

"And this matter of coal and gas at Charleston is one of tremendous advantage. Only those manufacturers who have had an experience with coal elsewhere and with gas here can fully appreciate how great the advantage is. This applies particularly to tempering, so important a feature of the manufacture of tools, such as saws, axes, augurs, files, chisels and all edged tools for cutting. With gas there is perfect combustion. The workman can see right into the furnace at all times, which is not possible with coal or oil fuel, and what is called wind burning is not so liable. An unskilled heater can do the work easier with gas than the most skilled one can with other fuel, and can do two or three times as much work, without any danger of injury to the product. This, of course, gives a better article at a cheaper cost, giving a double advantage that only those who have had the experience can realize and comprehend. It would actually be better to pay for gas than to use other fuel free.

"But not only is gas better than any other fuel, but it is vastly more economical in every way. In the boiler-room we have demonstrated by experience that the same boiler will produce from 50 to 100 per cent. more of steam with gas than with coal. This is largely on account of the steadiness of the heat. When we had to change from gas to coal in Indiana we had to increase our boiler capacity 50 per cent., and then we couldn't keep up the desired amount of steam. The gas we are using here is even richer in heat units

than that we formerly used in Indiana, so that it is more advantageous for us to use gas than ever it was. Taking the fuel bills for boiler-rooms, forging and all departments, and considering the economies in handling and the superiority of the product, we figure that we are making a saving by using gas as compared with other fuels of at least \$100,000 a year.

"After the gas gives out we will have practically at our doors, and in quantities sufficient to last a thousand years or so, the finest gas coal in the world. But I don't believe the gas will give out here for 50 years. We have the greatest gas field in West Virginia that the known world contains. It extends from the northern part of the State southwesterly to Kentucky, and Charleston is in the center of one of the richest parts of the field, in which development has only fairly begun. A big well has only recently been struck in Lincoln county, so there is no doubt of gas on both sides of us, and it may be right under the townsite of Charleston. Owing to the mountainous character of this section, it will be impossible to pipe the gas out of the State to the extent that was done in Indiana, so a large part of West Virginia's gas, particularly in this section of the field, will be left for the use of the manufacturers in the State.

"Any manufacturer who wants them will be given my meter readings, and he can figure for himself what the saving will be in natural gas here over coal, wherever he may be, and if he is a large consumer of fuel it will be readily apparent that a great saving may be made by locating here—in the case of many manufacturers running all the way from \$50,000 to \$100,000 a year.

"Another great advantage to a manufacturer in coming to Charleston now is that he would be able to get a good, ample site without cost or at a most reasonable figure. No manufacturer who has built his business up from a small beginning—and that is the only way successful manufacturing ever is built up—can fail to realize how much more convenient he might arrange his factory if he could build anew and in harmony with a complete plan. His present factory, if located at the site of the original building, is a series of additions and makeshifts in which the most economical operation is impossible. If he were to build anew from the ground up and had plenty of room he would build a series of one-story structures, so that there would be no lifting and lowering from one story to another. Everything being on the ground floor, there would be expedition and economy in handling, with a consequent great saving in the cost of operation, which would appear in the dividend account of the institution. Taking the raw materials into one end and by a continuous forward movement landing the finished product in the shipping-room at the other simplifies the management, and anything that simplifies the management adds to the profits.

"Of course, it is possible to get plenty of cheap or free land for sites in many sections of the country where a new factory with all the advantages named may be constructed. But when one is about it why not get all the advantages possible? Here at Charleston are to be had not only the cheap or free sites required, but all the benefits of river navigation as well as railroad transportation, the great advantage of cheap and long-lived gas, with practically inexhaustible coal of the finest quality when the gas is gone, and on top of all these advantages a climate of remarkable excellence. On account of the configuration of this valley, apparently, there is always a cooling breeze in the night time around Charleston, so that a refreshing sleep is to be obtained practically every

night in the summer. That is a most important matter to workingmen, particularly to those who have to work in great heat during the day time. They can stand the work without trouble if their sleep is unbroken. If otherwise, the heat of the mills breaks them down. Charleston has an advantage in this line over any of the Ohio river cities and over almost any other river point I know.

"Whenever a manufacturer has a present plant that could be sold for a sum more than sufficient to pay the expenses of removing to Charleston and construct-

ing new works here, I am bound to consider that he is standing in his own light by refusing to make the change. The man who takes a long look ahead cannot fail to see how important it will become to him to be on the best possible competitive basis. In the course of time Charleston will get many factories, and aid of the kind now offered will be impossible to obtain. I shall expect to hear some regrets expressed then by those who now have an opportunity to come, if their present opportunities shall be turned down."

ALBERT PHENIX.

ON GAINING ENGLISH SETTLERS FOR THE SOUTH.

By J. A. HUNTER of Halifax, England.

[Written for the Manufacturers' Record.]

Others than the representatives of the State governments of Virginia and South Carolina have been inquiring personally into the prospects of securing immigrant labor from Great Britain. Canada's government agents are always busy, and now the intention of the Canadian Manufacturers' Association to set up their own employment bureau in England is definitely reported. We have had agents of the Canadian cotton companies in Lancashire to attract fresh drafts of skilled textile workers. And Australia devotes a new energy to the business of booking eligible agriculturists. In varying measure all succeed and make competition with the United States, towards which the tide of emigration nevertheless sets strongest. In face of all the obstacles that the immigration laws impose, half our emigrants make America their new home, and no doubt many more than half of them settle in some other part than the South. To our working people America means the North when it does not mean the West. The South is an era they do not hear about, and which few do hear about who are not followers of the reports as to cotton or tobacco. It is for Southerners to decide how their region may best be made known. The object of the present article is to throw a little light on the situation of the classes in Britain from whom immigrants might be drawn.

It is not certain that the people of the South who now want help in their manufacturing and agricultural industries know much more of our economic position than we of theirs. They have heard probably of that famous and slightly foolish passage from a speech three years ago by our present premier. In a moment of indiscretion Sir Henry Campbell-Bannerman blazoned to the world a statement that "13,000,000 in this country are living on the verge of starvation." The effect of this may well have been to encourage a belief that far more people than have shown willing might be induced to try a new country. Southerners must have heard, too, of our legions of unemployed and unemployable who have adopted dramatic means of directing public attention to their sorry condition. These have been advertised better than have the slow and gradual processes of absorption through which the dispossessed workman finds other work and wages. As closely as may be ascertained, there is a proportion of 4 per cent. of the working population regularly out of its jobs. But—as a distinguished English economist has been pointing out—the personnel of this 4 per cent. is continually changing. The proportion is constant, the constituents are variable, and it is not to be supposed that one has only to put an attractive proposition before this body of people in order to draw them away. Nor is it very likely that the South wants the residuum of the

industrial army of Britain, even were its members able to satisfy the port authorities.

Eyes will turn rather to those who are in no distress, who are not chronic out-of-works, and who might be attracted by the superior inducements that the South can afford. Many things pertinent may be said of these people, and in saying anything at all it is necessary to remember that nothing can destroy their personal inclinations or interfere with the liberty of their choice within a certain range of things practicable. Some are disposed to wander and to speculate on the chances of selling their labor in other fields. Without a doubt more of them are inclined to stay at home amongst people they know. The less skilled man with six pence per hour and the more skilled with their eight pence or more can support life in the situation to which they were born, and not many entertain hopes of a living that is very much better. They know that in America wages are higher, but they set against that the knowledge that living is dearer also. What they have heard leads them to believe that American employers are fickle, and that abroad a man is less secure in his employment than at home. In saying these things I repeat what I believe to be a general impression, and what has been said more than once to me when there has been some question of emigrating a likely fellow. It is not uncommon to find in print or in talk the saying that nowhere else in the world is the workingman so little considered as in America. Whatever the justice of these libels, it is proper that Americans should hear of them and guess their effect. The South doubtless will suffer by implication from offences given in the North.

As well as these general indications, some others are of special force now. The South wants men because its industries are expanding. There are evidences that industry is extending all over the world, and it will not be difficult to show that business is improving in Great Britain. Advances of wages are the most trustworthy sign in this connection, and it is worth saying that we hear nothing of reductions. Cotton operatives have received large advances during the past year, and in industries subsidiary to the textile there have been numerous improvements, not in themselves large, but yet significant. During July, according to the limited statistics taken by our labor department, some 79,000 people shared in advances aggregating \$15,000 a week. Colliers, mechanics and shipbuilders are amongst the beneficiaries, and on their earnings the prosperity of numerous allied trades depends. Advances, of course, connote contentment, and the satisfaction of modest aspirations at home must tend to divert some persons from their thoughts of going abroad. But it would be rash to assert that British prosperity will act as a serious check to

emigration. Figures might be selected to show that emigration has been very large in undeniably good years, and that bad trade has not invariably coincided with a large outflow of people. The number has more probably been determined by the efforts put forward elsewhere to attract immigrants than by any variations in conditions here.

Much might be adduced in support of that opinion if space permitted. If the opinion is right, it becomes the more plain that the success of the South in attracting people from England is chiefly in its own hands. If the material inducements are great enough and if they are presented with becoming skill, the South will not be an ineffectual suitor for the hand of the British workingman. As compared with Canada, the South is handicapped by the laws which make possession of \$50 and sound health a condition of entry. Passages are cheap to Canada, and immigrants "pass the doctor" in the same literal sense that they pass a post in the street. Then one may go out to Canada under contract of employment, which is a substantial consideration in the eyes of a family man. Canada has been advertised "like a patent pill," as one writer has expressed it. Her lecturers, her touring motor cars and posters are everywhere, and nobody contemplates emigration without giving the Dominion a thought, and usually the first thought. Australia caters for settlers for the lands cut out of the erstwhile sheep runs, and she also prevents contracts of engagement made externally. South Africa has nothing at present to offer to the white man. Thus it is that the North and Canada are inevitably the chief rivals to the South. And if the South is to gain direct immigrants from this country she first must make herself known.

How little the Southern States are known amongst English working people will be with difficulty appreciated by Southerners. The South is not uncommonly confused with the south continent by people of little education. Except from "Uncle Tom's Cabin," those with rather

more schooling have had few chances to visualize for themselves this portion of the United States. What wonder, then, if they picture it as a land of swamps and alligators in which colored people do the only manual work? There are people better informed, but I write of the masses who have heard no word of modern development in the South or of the potentialities still remaining.

As a starting-point in any campaign of enlightenment it will not be superfluous to prove the South to be indeed a white man's country and to possess a climate tolerable to others than Spaniards and Italians. English papers have told that the ranks of field laborers are being recruited from these, and it is not improbable that on this point popular conceptions need correcting. Such impressions have obtained a long start, and they will not be overtaken without persistent exertions which those concerned with the South will have to make for themselves. Our government has its emigrants' information office, a department of the colonial office, whose main business is with the British colonies. Its circulars and handbooks detail wages and living costs in those countries. It distributes occasional pamphlets on foreign lands and issues regularly a United States circular, and its attitude towards emigrants is paternal. As disseminators of information the steamship offices and agents are probably more effective than the government, and a good way to reach those who intend to emigrate is through them. To arouse desire in those who are at present innocent of such intention is obviously a different problem. Its solution entails expense and energy and doing more or less as those strenuous people do who are booming Canada and Australia. New means of arousing interest in these places are continually being devised. Cinematographs are turned towards the education of villagers, and by arrangement with the New Zealand government an American entertainer who tours England introduces allusions to the advantages of that country to his audiences. Competition is keen, and its means are various.

Importance of Technical Education to the South.

By L. S. RANDOLPH, Consulting Engineer.

[Written for the Manufacturers' Record.]

It is said that nine-tenths of the disputes could be settled were correct definitions used. In order that we may avoid any such thing, let us define technical education.

Education is technical when it pertains to the useful or mechanic arts. It can be divided into manual training, that is, such as is given to the skilled workman or operative, and engineering education.

By the former we shall understand that education which is given to the carpenter, the blacksmith, the electrician and the mechanic, where a man is trained to do one thing intelligently and well as a tradesman.

In defining engineering education it is necessary to define the word engineer, and on account of the almost universal misconception of the engineer and his work, a somewhat lengthy discussion will be necessary.

An engineer is one who applies the discoveries of the scientist to the use of mankind. Unfortunately, in this country the spirit which calls the dancing master and the barber professor, the sign painter an artist and the patent-medicine vender a doctor has given the title of engineer to all sorts and conditions of men—to the negro who fires the boiler and runs the engine of a sawmill, to the man who strings the electric wires and "tends the dynamo," as

well as to the man who pulls the throttle on the locomotive.

In Great Britain and on the Continent one is more careful of his distinctions, and such an explanation as this would be wholly unnecessary.

The engineer is a professional man as much so as the lawyer or physician, and his work is rather the solution of problems than their execution—constructive, not operative. The man who designs and superintends the construction of a locomotive is an engineer, not the man who runs it. The engineer requires a broad and liberal education. The courses which are given only too often do not cover anything like the ground which is necessary for an engineer. In order to prevent this many institutions refuse to give the engineering degree, claiming that one can get the necessary training therefor only by actual practice. To a certain extent it is true that practical experience is necessary, yet it is possible for an institution to arrange a course so that a man will be fitted to practice the profession when he leaves.

With these definitions assumed we can take up the discussion of the advantages of technical education to the South.

Edward Atkinson and many others have pointed out, and the recent march of events has fully confirmed the prophecy, that the future situs of the industries of

the country will be in the South. The enormous industrial development in the past and the promise of still greater development in the future makes the question of technical education one of the most important of the day, for it has been established beyond the shadow of a doubt that those at the head of all industrial development must be educated and trained men. Go where you will, it is difficult to find at the head of any industry a man without technical training who is successful; if not college bred, he is self-educated.

In the Southern States in 1901 there were 1605 engineering students. Taking the percentage of graduates to be 60 per cent., 963 of these will graduate, or at the rate of 241 per annum. In 1900 there were in the above-mentioned States 14,707 civil, mechanical, electrical and mining engineers. Considering the average working life of a man as 25 years, 590 of these would disappear annually. In other words, the technical schools of the South are not supplying one-half of the annual loss in this profession.

It would seem that this were bad enough, but when one considers in this connection the industrial growth of the country, matters are far worse.

The increase in the value of the industrial output of the South for the last 25 years has been about 561 per cent., or 22 per cent. per annum. In order to supply this demand on the engineering profession there should be added 3235 engineers each year. Adding the loss from deaths, etc., enumerated above there should be supplied 3825, or sixteen times the output of our engineering colleges. In other words, for every engineer educated in the South 15 are brought from outside. No wonder that the *Atlanta Constitution* asks the question, "Why is it that when a superintendent is wanted for a cotton mill or an engineer is wanted for a power plant he must be brought from the North or West?"

The above figures are more favorable to the engineering profession than to any others, for the Southern technical colleges have, as a rule, far more engineering students than those of any other line of work. In some of them over one-half of the technical students are in the engineering courses.

Furthermore, the imperfect and inadequate equipment in the technical schools in the South prevents the training of our young men in that thorough manner which is necessary to win the confidence of capitalists and the investing public.

Again, in order to get this thorough training the majority of our technical graduates go in Northern and Western manufacturing establishments, thus drawing off our best men to other fields.

From one institution alone at least 80 per cent. of the mechanical and electrical men have sought employment in Northern or Western industrial establishments, and of the total number of these graduates within the last 10 years, not 20 per cent. are employed in the South.

This means that the men who lead in the development of the South must be brought from other parts, and that our young men must either go away or be content with the subordinate positions. In the cotton mill, the power development plant, the railway and the machine shop, fifteen-sixteenths of the superintendents, engineers, managers, etc., must be brought from outside. That our young men are capable of filling these positions is unquestionable. The number who have gone into the Northern establishments and who are now holding positions of trust and responsibility amply proves the adaptability of our young men for this class of work.

It is no uncommon thing to see a man owning a deposit of clay or coal totally ignorant of its true value, and with no

local man to whom he can turn for information. In one case a valuable deposit of coal lay for 40 years, known, mined in a small way, and fully exploited so as to show its extent, without being taken up until a man who had been trained outside of the South saw its possibilities, took it up and developed it.

The constant cry of the managers of our industrial plants that there are so few competent mechanics in the South indi-

cates that the condition shown to exist in the engineering profession exists in the trades also.

We are compelled to face the issue that unless measures are taken to give adequate facilities for the education and training of our young men in engineering and the mechanic arts the glorious privilege of our industrial possibilities must pass to others.

Blacksburg, Va.

Recovery of Free Gold from Southern Saprolites.

[Written for the Manufacturers' Record.]

It has long been a problem how to profitably recover the free fine gold which throughout wide areas of the South is found diffused through clays, gravels and saprolites. For many years it was not regarded a problem worthy of solving, because the search for nugget gold occupied exclusive attention. From the notable day in 1799 when a 17-pound lump of gold was found on a North Carolina farm, down through the succeeding years the search has been continued for the coarser gold with the alluring possibility of sudden wealth in bonanza finds. In the earlier years in many sections farming and mining went hand in hand. When crops were laid by slaves and farm hands worked river bottom or gravelly hillside with no little profit to the plantation owner.

Systematic mining operations during the first quarter of the last century were confined chiefly to North Carolina. Indeed, during this period this one State furnished all the gold produced in the country. Following this time the placers or like deposits were worked throughout the entire Appalachian slope from Virginia to Alabama. There was some development of vein mining, confined chiefly to the gossan outcrops, but the discovery of gold in California in 1849 and the commencement of the war a few years later caused practically a total cessation of all activity in Southern gold mining. From time to time there have been revivals of interest in vein mining, but not until this year has there been so widespread an interest as now exists in the rich gravel deposits and in what are technically known as "saprolites." This interest has no doubt been stimulated by the recent successes in California dredge mining, where large areas are being profitably worked in material carrying as low as 15 cents of gold per yard.

"Saprolite," meaning literally "rotten rock," has been adapted as a technical term descriptive in general of the decomposed rock which forms the most notable feature of auriferous formations in the South. The depth of this rock decomposition is remarkable, extending as it does to a depth of from 25 to 150 feet, and often to the unfeigned surprise of mining engineers when they first examine Southern formations. Southern Virginia, Central and Western North Carolina, South Carolina, Georgia and Alabama all have in their borders untold wealth loosely held in these auriferous saprolites or in gravels formed by their disintegration.

Wasteful methods have almost always prevailed in working these deposits; hydraulic, for example, with a considerable volume of water and the consequent loss of most of the precious fine gold. It is only when methods are pursued involving the saving of the fine gold primarily that the best and highest results are obtained. The fact that such gold is often evenly distributed through the gold-bearing area forms a basis for operating a property as a distinctly business proposition removed from speculation. A recent visit to the mine of the Catawba Gold Co., Catawba, N. C., revealed the wonderful possibilities to be found in handling sapro-

litic formations. These operations have attracted wide interest among mining men, and capitalists are taking up the method and applying it in various other localities of the South. In the plan pursued the work is confined to open-cut mining, and no shafts or tunnels are made; in fact, after the ground has been thoroughly prospected and the limits of the auriferous zone fully determined the first part of the operation is simply a question of the most economical method of excavating the material and transporting to a properly-located hopper. The method employed at Catawba involves loosening with powder of large masses of material and the use of dump cars and steam hoist for transporting it to the pulverizing and concentrating machines, which are the essential feature of the whole operation, and which render profitable the working of these low-grade propositions. The concentrating machines, so successfully employed by this company, consist essentially of two iron troughs or concaves with heavy lids, the first machine measuring 18 feet and the second 12 feet in length, and through each washer extends a strong revolving shaft, to which are bolted projecting blades arranged spirally. The first shaft is geared to make 100 to 250 revolutions per minute, and the second 250 to 350 revolutions. A coarse-mesh screen is operated between the two washers, with a fine-mesh screen at the foot of the smaller one.

The process of pulverizing and concentrating is of the utmost simplicity. The gold-bearing material is introduced in a flow of water at the head of the large washer. The rapidly-moving washer blades quickly pulverize the material not already disintegrated. There is a space of four inches at the bottom of the concave in which sand and gravel accumulate, and where the free gold settles; this being undisturbed by the washer blades, the gold remains there until a clean-up is made. The other material is propelled through the first washer, after which the revolving screen removes any coarse rocks, and the fine material is then again thoroughly worked in the second washer. So efficient are these machines that the clean-ups, which are necessary once a week, always show that the highest percentage of gold is recovered in the first washer, leaving only a limited amount of very fine gold to be caught in the second or amalgamated in the riffles beyond, their particular value being that they save not only the coarse gold and nuggets, but the fine gold that would be lost in the ordinary process of sluicing. A notable feature of this method of treatment is the fact that a large water supply is not required, and if necessary the water can be impounded and used repeatedly. One machine consisting of the two washers indicated handles at least 100 tons of material in 10 hours and requires only 75 gallons of water per minute for the purpose.

As already intimated, this method of treating saprolites is rapidly spreading, as its simplicity, economy and efficiency are so evident. The astonishing number of deposits in the South carrying free gold run-

ning not less than 50 cents per cubic yard, and which can be handled for 10 cents; the relative cheapness of fuel and labor, the climatic conditions, which are favorable for operations the entire year, are all elements which combined present business opportunities which capital and enterprise will not be slow in seizing. If the Western system of government mineral lands and mining claims existed in the South and the field was open to the individual professional prospector, it is safe to say there would be a veritable stampede to this neglected El Dorado.

IRON SUPPLY LIMITED.

Top-Notch Price Prevails in the Birmingham District.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., September 3.

The supply of iron for immediate delivery in this section is limited, and for that reason the top-notch price prevails. Iron in small lots, delivery within a month or two, is commanding \$16 and \$17 per ton, No. 2 foundry basis. There is some iron being sold for delivery during the first quarter of next year at \$15 per ton, while \$15.50 is being received for the product with delivery stated two and a-half months off yet and longer. There are no indications that the demand is likely to hold up in the near future, though such reports have been heard in the North. If there is any plan on foot on the part of the consumers to abstain from the mart, anticipating a reduction in prices, there are no signs of the same in this territory, and the demand holds up well and inquiries are still active. The greater portion of the indications are for the better grades of iron, too, with from two to three and four months' delivery stipulated. The home consumption shows no signs of weakening whatsoever, and the railroads are lending every assistance in filling orders and getting business wherever it is possible. It is not denied that some of the furnace companies in this district are still selling iron at the low price; in fact, the fatal mistake is now apparent. There was a controversy in this district, so it is related, as to the probabilities of the mart. One interest contended that there must be a better condition in sight than prevailed at that time, while the other expressed the opinion that it was advisable to sell just as liberally as possible at the price made at that time. However, only one or two companies had the same view, that is, to sell, and as a consequence the Alabama furnace companies as a general proposition should have an excellent and profitable winding up of the year. Despite the rumors to the contrary which come to this section from the North and West, the future mart is looked on with considerable favor.

The production in this district was improved some by the blowing in of a furnace at Bessemer, Ala. (Tennessee Coal, Iron & Railroad Co.), and announcement is made that two other iron makers are almost ready for the torch and should be in operation before the end of the present month. The make of iron in this district is likely to be held backward a little by the supply of raw material. The coke supply is improving right along, and with additional machinery at the ore mines and further development in the red and brown ore fields all possible trouble in that direction will be overcome. When the furnaces were idle in this district a year or two ago considerable ore was accumulated. This has been worked down again, and now the mines are called on to "get a move on themselves" to keep the furnaces well supplied. There is any quantity of ore in this section, but the output could be greatly improved. However, it is firmly believed that all the furnaces that are in condition can be started up and the raw-

material supply will be found when needed.

The iron on the furnace yards is moving off slowly. There is not a great quantity of iron to be seen on the furnace yards in this section.

No changes are reported at the steel plants, cast-iron-pipe plants, foundries and machine shops and at the rolling mills. There appears to be much business in hand and in sight, and steady operation is noted on all sides.

John A. Topping, president of the Republic Iron & Steel Co. and chairman of the board of directors of the Tennessee Coal, Iron & Railroad Co., arrived in Birmingham the latter part of the past week, coming from his headquarters at Pittsburgh. He came here to look over conditions and watch the progress on the new steel plant at Ensley. Plans outlined some months ago by the Republic-Tennessee Company are being carried out.

Two important meetings were held by Alabama industrial companies the past week, both of which will mean much for the district. The stockholders of the Southern Steel Co. held a meeting at Gadsden, and among other business transacted decided on an increase of the capital stock from \$16,000,000 to \$25,000,000. While no definite statement is made, it is understood that the Southern Steel will acquire the properties of the Lacey-Buck Iron Co. and the Chattanooga Iron Co. These two companies have a furnace each, together with coal and ore mines, coke ovens, limestone quarries and other valuable properties. The Southern Steel Co. has a furnace and steel plant at Gadsden, steel-rod, wire and nail mills at Ensley and coal and ore mines, quarries and other properties in various parts of the State. The concern is in splendid shape, shipping great quantities of its product to foreign countries. The acquisition of the two iron companies mentioned will make the company quite formidable in industrial circles. The other meeting held was by the stockholders of the Bessemer Coal, Land & Improvement Co. at Bessemer, Ala., at which \$250,000 was added to the capital stock. The company owns and operates coal mines in Bibb county, Alabama, and at Wind Rock, Tenn. The additional capital will be used in further developing the coal fields and increasing the operations of the company. Both of these meetings will mean much for the Birmingham district in general.

Contracts have been let for the construction of the Atlanta, Birmingham & Atlantic Railroad (Brunswick & Birmingham) from Bessemer, 12 miles south of Birmingham, to Pelham, Ala., C. D. Smith & Co. of this city receiving the contract. The same contractors and the Dalhoff Construction Co. have closed with the railroad for the work between Pelham and Talladega, Ala. It is expected that trains on this railroad will be operating into the Birmingham district within the next 12 to 15 months. The Atlanta, Birmingham & Atlantic will make strenuous efforts to get the traffic of this district for the coast, and the sea operations from Brunswick will be extensive, it is expected. The construction work on the railroad in Alabama will be rough.

The Illinois Central Railroad is pushing the work of building into and in Birmingham, and it is expected that before six more months have expired trains will be running into the district. It is known that the tracks of the Southern Railway and Frisco will be used from Haleyville to Birmingham. Announcement is now made that the Illinois Central is considering the construction of its own lines from Haleyville to Birmingham.

Savannah, Ga., is to have a new steamship line to Bremen and Hamburg.

Possible Difficulty in Getting Iron Ore

The *Iron Age* in its weekly review says:

"The excitement in the pig-iron markets has quieted down somewhat, although the danger of a runaway market has not disappeared and is regarded in some quarters as imminent this fall, particularly in foundry iron. The action of one leading producer in the South in selling freely for forward delivery at close to \$15, Birmingham, for No. 2, has had a quieting effect. In a number of the principal distributing markets both the volume and the urgency of the inquiries for forward delivery are less pronounced, but there is some eagerness to cover immediate requirements. Gaps in deliveries on contracts at old prices have become somewhat frequent and cause some high prices, which, however, are hardly a criterion of the market. At such spot prices foreign pig-iron could be imported into such ports as Boston at a profit, but at the present range of values for forward delivery at home and abroad business is not practicable even at exposed points.

"Steelmakers view the rise in pig-iron more complacently. Some of the largest interests have reached their full converting capacity anyhow, and with them it is a question of supplying the finishing mills with steel rather than of feeding the steel plants with pig-iron.

"There is some doubt as to whether we shall get down enough ore during the season for the requirements of the winter and early spring, and the coke supply, too, is causing uneasiness. In both cases the root of the evil lies in the shortage of labor, which is marked in nearly all the sections and in nearly all branches of the industries. Thus far the railroads have handled the transportation admirably, but here, too, the pressure of the enormous volume of business being done is beginning to find its reflection in hitches.

"The week does not record many transactions of special magnitude or of particular significance. The railmakers have added to their order-books for 1906 and 1907 delivery 10,000 tons additional for the Chicago & Northwestern, and 30,000 tons for the Southern Railway. The Steel Corporation has just ordered over 3000 steel cars for its different roads, and has accepted bids for a number of additional locomotives."

For Direct Foreign Connections.

[Special Dispatch to Manufacturers' Record.]
New York, N. Y., September 5.

The North German Lloyd Company will about the middle of October dispatch a steamer on an experimental trip from Bremen by way of Baltimore to Charleston, S. C., and Savannah, Ga. This experiment will be made in response to an effort active at the Southern ports, in connection with the immigration movement, to get direct steamer connections with foreign ports.

The Houston Bankers, Jobbers and Manufacturers' Association has been organized with Messrs. H. W. Cortes, president; John McClellan, secretary, and Charles P. Shearn, E. A. Peden, W. D. Cleveland, Jr., J. W. Neal, B. B. Gilmer, James H. B. House, Thomas Flaxman and T. A. Cargill, directors.

The contract for the construction of a railroad between Snyder, Texas, and a point at or near Roscoe, Texas, on the Texas & Pacific Railroad, calls for the completion of the grading in eight months and the operation of trains within two years.

The Merchants and Manufacturers' Association of Rome, Ga., has issued a booklet presenting a pictorial story of Rome and its immediate territory likely to attract the attention of the investing manufacturer or agriculturist.

TEXTILES

The Woodlawn Manufacturing Co.

The Woodlawn Manufacturing Co. of Mt. Holly, N. C., is proceeding with the construction of its plant, details of which were reported last January. It was announced that the company organized to build a 5000-spindle plant, and 5200 spindles will be placed in position for the manufacture of 30s to 40s yarns. Electricity will be obtained from the Southern Power Co. for driving the textile machinery, which has been contracted for. The Saco & Petee Machine Shops of Newton Upper Falls, Mass., will supply the textile machinery, and the General Electric Co. of Schenectady, N. Y., will furnish the electrical equipment. The Woodlawn Manufacturing Co. was at first reported under the title of the Woodlawn Cotton Mills. It has a capital stock of \$80,000, and the officers are: President, C. E. Hutchins; vice-president, J. M. Springs, and secretary, J. W. Holland. Mr. Stuart W. Cramer of Charlotte is the engineer in charge.

The Chatham Woolen Mill.

About a month ago the MANUFACTURERS' RECORD reported the decision of the Chatham Manufacturing Co. of Elkin, N. C., to increase its capital stock from \$50,000 to \$350,000 and build a large woolen mill at Winston-Salem, N. C. It is now stated that H. G. Chatham, president of the company, has received plans for the plant and will submit them to the stockholders for approval during the present week. A site has been secured and arrangements will be made to award building contracts soon. This mill is to produce fine woolen blankets.

The Imperial Yarn Mills.

The Imperial Yarn Mills of Belmont, N. C., will probably be ready for operation by December 1. This company was organized about the first of the year, as reported in the MANUFACTURERS' RECORD at the time, and its buildings have been under construction for several months. An equipment of 10,000 spindles and accompanying machinery will be installed, and the product will be Nos. 40 to 50 yarns. The company has a subscribed capital of \$160,000, and its secretary-treasurer is R. L. Stowe. Mr. A. L. Lineberger is president.

The Hammond Woolen Mills.

The Hammond Woolen Mills of Hammond, La., has been organized with a capital stock of \$75,000 by Messrs. C. N. George, J. A. Lackey, W. C. Fontaine and others, including a number of Chicago capitalists. This company plans to build a large woolen mill.

Cotton-Mill Products.

Mr. Jacques Nahum of Smyrna, Turkey, wants to correspond with manufacturers of lampwicks, cotton sewing thread and "cabot." This latter is a species of cotton goods, according to Mr. Nahum's statement.

Textile Notes.

The McCormick (S. C.) Land & Lumber Co. is reported as to build a cotton mill.

The Perkins Hosiery Mills of Columbus, Ga., has received a contract for 26,000 dozen pairs of high-grade hosiery.

The Burlington (N. C.) Hosiery Mills Co. has been incorporated with capital stock of \$20,000 by G. W. Fogleman and associates.

Mr. Robert L. Graham, president of the Huguenot Mills of Greenville, S. C., has leased and will operate the Banna Cotton

Mills, a 7100-spindle plant at Goldville, S. C.

It is reported that the company reported in July as organized to build a cotton mill at Summerville, Ga., is about to begin construction work. Mr. John D. Taylor is president. The superintendent will be Ralph L. Wilson of Lindale, Ga.

Messrs. Karl Bivings of Dalton, Ga., and John D. Donaldson of St. Louis, Mo., will establish a knitting mill at Dalton. They have secured a suitable factory building and will install equipment of machinery for manufacturing hosiery for women and children.

The Selma (N. C.) Knitting Mills has completed its plant and began operations during the week. This company was organized some months ago and has been erecting a main building two stories high, 40x190 feet in size. An equipment for manufacturing knit goods has been installed. The company is capitalized at \$25,000, and M. C. Winston is president.

The Southern Cotton Oil Co. of Charlotte, N. C., has received contract from the War Department for 10,000 cotton-felt mattresses for the United States army. The company's plant has a daily capacity of 120 mattresses. These are manufactured from cotton felt made from short cotton lint ginned from cottonseed used in the company's several cotton-oil mills. All of the lint secured at the oil mills of the company, including about 40,000 bales yearly, is shipped to the textile plant at Charlotte to be made into mattresses.

Cottonseed Crushers' Committees.

The new committees appointed by President F. H. Bailey of the Interstate Cottonseed Crushers' Association for the coming year have been announced as follows:

Executive Committee—President F. H. Bailey, Paris, Texas, chairman; Vice-President L. A. Ransom, Atlanta, Ga.; Jo W. Allison, Ennis, Texas; E. M. Durham, Vicksburg, Miss.; J. C. Hamilton, Baton Rouge, La.

Committee on Rules—L. A. Ransom, Atlanta, Ga.; A. D. Allen, Little Rock, Ark.; J. M. Macdonald, Franklin Ives, Cincinnati, Ohio; E. E. Chandler, Chicago, Ill.; E. T. George, New Orleans, La.; L. W. Haskell, New York; R. L. Heflin, Sherman, Texas; Ernest Lamar, Selma, Ala.; R. A. Allison, Winona, Miss.; E. P. McBurney, Atlanta, Ga.; Fred B. Jones, Memphis, Tenn.

Committee on Appeals and Grievances—C. Fitzsimons, Columbia, S. C.; E. S. Ready, Helena, Ark.; E. M. Durham, Vicksburg, Miss.; W. C. Soria, New Orleans, La.; Addison Craft, Holly Springs, Miss.; W. R. Cantrell, New York; G. W. Alston, Texarkana, Ark.

Bureau of Publicity—L. A. Ransom, Atlanta, Ga.; Jo W. Allison, Ennis, Texas; B. F. Taylor, Columbia, S. C.

Legislative Committee—J. C. Hamilton, Baton Rouge, La.; J. J. Culbertson, Paris, Texas; Erister Ashcraft, Florence, Ala.; John Aspegren, New York; Fielding Wallace, Augusta, Ga.

Committees on Arbitration—At Dallas, Texas: Jo W. Allison, Ennis; Ed Woodall, Hillsboro; J. S. Armstrong, F. D. Matthews, Dallas; R. L. Heflin, Sherman. At New Orleans, La.: E. T. George, W. E. Jervey, R. Vallon, R. C. Burke, W. C. Soria, New Orleans. At Atlanta, Ga.: L. A. Ransom, E. R. Ravenal, M. S. Harper, Julian Field, E. P. McBurney. At Memphis, Tenn.: Fred B. Jones, S. J. Cassels, A. F. Lewis, H. J. Parrish, F. W. Brode, Memphis. At New York, N. Y.: John Aspegren, T. S. Young, C. I. Long, C. E. Kuh, W. R. Cantrell, New York city.

Committee of Chemists—David Wesson, chairman, New York; R. B. Hulme, Louisville, Ky.; Felix Paquin, Tenn.

RAILROADS

SEABOARD AT JACKSONVILLE.

Spending Thousands of Dollars in Terminals Revision.

The MANUFACTURERS' RECORD is indebted to Mr. W. D. Faucette, assistant engineer at Savannah, Ga., of the Seaboard Air Line Railway, for details of that company's improvement now under way in Jacksonville, Fla. The Seaboard Air Line Railway is at present revising its Hogan-street terminals. The Hogan-street terminals are situated in the heart of the city, and lie between Bay street and the river. The increasing business and the demand for modern facilities made it necessary for the road to materially change and practically reconstruct its terminal at that point. The revision of the yard carries with it an expense aggregating nearly \$200,000, and consists of a complete reconstruction of the tracks, as well as raising the general elevation some three or four feet. The new layout of tracks will afford ample and commodious driveways, which will give easy access to cars with teams from shippers who do a heavy team business. After the yard has been filled and all tracks completed it is the purpose of the company to lay a suitable paving of bricks or other material over all the driveways. This in itself will be a marked improvement over the present conditions. It was necessary in the general work of the reconstruction to build considerable dock room on Hogan street and adjoining St. Johns river. Some 18,000 square feet of dock room was added at that point.

All of the present wooden warehouses, which have been in use for some time, will be demolished and they will be replaced with handsome brick buildings with sizes suitable to handle the increasing business. The receiving warehouse is a large building built of brick, size 60x310, two stories high and now nearly three-quarters completed. This building is on a substantial pile foundation, and when completed will make an imposing warehouse. The top floor will have main offices therein which will accommodate the superintendents of the two divisions (Southern) of the road, as well as other officials of the system who are located in Jacksonville. The general type of the building as regards the framing work is built largely after the manner of slow-burning mill construction. On both sides of the building will be a metallic overhanging awning. The roof of the building will be gravel. Every reasonable attempt to reduce the hazard of fire has been made, and the building is also in accordance with the fire regulations of the city of Jacksonville. This building will be furnished with electric elevator, electric lights and modern conveniences, and in every manner will be a modern brick railroad warehouse which will materially add to the looks of the terminals as well as afford a most desirable receiving warehouse for the railroad.

The forwarding warehouse, which will be in some respects a twin building to the receiving warehouse which is above described, will be built parallel and will also face Hogan street. This building will be 310 feet long, and at its rear will be a platform 200 feet long and 60 feet wide, which will be covered by roof supported by steel trusses. This building will be one story high with the exception of about 60 feet at the Hogan-street entrance, which upper story will be fitted up for office of the local agent. This building will probably begin with the next three weeks and pushed to completion as rapidly as possible. The general improvement of the yard will be welcomed by the city of Jacksonville as well as by the road itself, and it is one of the many numerous improvements which the

road is now undertaking along its system in this territory.

In addition to the revision of this yard there is under construction and nearly half completed, within about three miles of the city, a large breaking-up train yard, which will contain 10 to 15 miles of track, and which occupies the most desirable site for a yard. The cost of this new yard will aggregate nearly \$100,000 and will furnish when completed ample track room for the handling of all local and through trains and fill a long-felt need. The Seaboard Air Line Railway, recognizing the necessity of this improvement, has endeavored to construct a yard which will fill all needs for the next several years. There are more improvements in and around the city of Jacksonville in the way of other facilities which have been contemplated by the management of this road, and which may take shape during the next several months.

When all the contemplated improvements are completed Jacksonville will have full and ample shipping conveniences equal to any city of its size in the South, and the road is sparing no expense to give the public and its patrons the best service possible.

The work is handled by Mr. W. L. Seddon, chief engineer, Portsmouth, Va., through the assistant engineer's office in Savannah, Ga. The engineer direct in charge on the ground is Mr. C. E. H. Sudler, now stationed at Jacksonville, Fla.

To Build a 21-Mile Line.

Mr. Bernard Mason, one of the directors of the Giles County Electric Railway Co., writes from Pearisburg, Va., to the MANUFACTURERS' RECORD as follows:

"The company was chartered some months ago, and at a meeting of the board of directors held last week sufficient stock was subscribed to organize the company. The following officers were elected: C. T. Painter, president; Thos. J. Pearson, vice-president; M. P. Farrier, secretary-treasurer. The above, with John W. Williams, Martin Williams, J. H. Woodram and myself, constitute the board of directors, all of Pearisburg.

"The object of the company is to build a dam across Wolfe creek and put in turbine wheels sufficient to make the power. Our plan is then to build a car line from this point, which is the county-seat, to the Norfolk & Western depot, one and one-half miles away. We will also connect with the new Tidewater Railroad when it is completed. The ultimate object of the company is to extend the car line to Newport, a distance of 16 miles, and to Narrows, in the opposite direction a distance of five miles, making a total length of 21 miles. This line would traverse a thickly settled and very prosperous farming and grazing section and connect three flourishing villages. We are now looking for a competent civil and electrical engineer to take charge of the construction.

"No day has been fixed for opening bids for construction and equipment. We prefer to do this by private bids."

New Equipment, Rails, Etc.

Fifty new locomotives and 3500 freight and coal cars are expected to be delivered to the Chesapeake & Ohio Railway shortly.

The first of three steel barges for the Consolidation Coal Co., to cost \$250,000, has been launched by the New York Shipbuilding Co. at Camden, N. J.

The Atlantic Coast Line has awarded to the Standard Steel Car Co. of Butler, Pa., a contract for 500 standard 36-foot steel underframed box cars and 500 standard 40-foot steel underframed flat cars. The company is having built at the plant of Harlan & Hollingsworth at Wilming-

ton, Del., 40 60-foot vestibuled first-class coaches.

It is planned by the Augusta Southern Railroad to add several engines and passenger coaches to its equipment.

The Southern Railway Co. is reported to have authorized the building of nearly 4000 freight cars for use in the mining district of East Tennessee and Alabama.

A cargo of steel rails has arrived at New Orleans for the Colorado Southern, New Orleans & Pacific Railroad.

It is reported that the Santa Fe tracks between Galveston and Houston are to be relaid with 85-pound steel rails.

The Pressed Steel Car Co. has received an order from the Huntingdon & Broad Top Mountain Railroad & Coal Co. for 200 hopper cars.

Johnson City's Hopes.

Mr. E. E. Ellsworth, recorder of Johnson City, Tenn., writes to the MANUFACTURERS' RECORD as follows:

"The South & Western Railroad Co. has options on a large amount of the best property in this city, and it is taking up many of the options. It is believed that it will locate its main shops at this point. The company has let a contract to Carpenter & Boxley of Roanoke, Va., for 10 miles of grading from the Southern Railway crossing at this place northwestward toward Kingsport. This is one of the easiest grades, the maximum being six-tenths to the mile, on any railroad in this country, and the road is practically straight. It is said, though the report is unconfirmed as yet, that the company has also let a contract to Walton, Wilson, Rhodes & Co. of Knoxville, Tenn., for a second 10-mile stretch beyond that mentioned."

The Race for Coal.

Bearing upon the unconfirmed report of a deal looking to the acquisition by the Southern Railway Co. of the Virginia & Southwestern Railway is a report that the Virginia & Southwestern is backing the Holston River Railway, a line now building from Moccasin Gap, Va., on the Virginia & Southwestern, to Persia, Tenn., a station on the Southern Railway, a distance of 40 miles, for the purpose of giving a free and short outlet to the South for the coal in Southwest Virginia. The Virginia & Southwestern is also said to be running a race with the Louisville & Nashville in building from Pennington Gap, Va., to the Black Mountain coal fields.

Greenville & Leland.

The Greenville & Leland Interurban Electric Railroad Co., which was projected in Mississippi a year ago, has recently been organized with a capitalization of \$300,000. It is proposed to build the line first between Greenville and Leland, a distance of 10½ miles, and afterwards to extend the road south, east and west, taking in a number of small towns in the route. The city of Greenville has a population of about 15,000 and Leland 1500. The projectors are all prominent local residents and property-owners. The officers are Messrs. Arthur Hiden, president; Morris Rosenstock, secretary, and James R. Robertson, treasurer.

To Reduce Grade.

It is reported that the Louisville & Nashville Railroad will spend more than \$1,000,000 on reducing the grade on its line between Parkwood and Helena, south of Birmingham, Ala. A dispatch from Bessemer says that a new route has been surveyed involving the driving of a tunnel 1400 feet long, and that the new line will be double-tracked.

It is expected that the grading of the Trinity & Brazos Valley Railroad will be completed by December.

Railroad Notes.

It is planned to start this fall construction of the Rapid Transit Railway at Wheeling, W. Va.

The Jackson Railway & Light Co. will use 56-pound steel rails for extension of its system at Jackson, Tenn.

The Hampshire Southern Railroad Co. has been chartered to build a road from Spring Gap through Romney to Durbin, W. Va.

In July the net earnings of the Louisiana & Arkansas Railway Co. were \$34,006, an increase over those of July, 1905, of \$4572.

The work of constructing the section of the Atlantic, Birmingham & Atlanta Railroad between Bessemer, Ala., and Pelham is progressing.

The Mobile Light & Railroad Co. will double-track the Beauregard & Charleston Street Electric Railway Line on certain streets in Mobile.

The Missouri, Kansas & Texas Railroad between 1897 and 1905 has spent \$10,785,537 for terminals, new equipment and other betterments.

About five miles of the track of the Hattiesburg Light & Traction Co.'s street-railway line in Hattiesburg, Miss., will be put down at once.

Plans are culminating for the construction of a railroad from Carrizo Springs, Texas, to connect with the International & Great Northern Railroad.

Surveys for the Tusculloosa, Birmingham & Gadsden Electric Railway, connecting Gadsden, Ala., with the Gulf coast, have been practically completed.

The Northern Railroad of Virginia has been chartered to construct a road through Frederick, Clarke, Loudoun, Fairfax and Alexandria counties, Virginia.

A charter has been granted to the Atlanta & Carolina Railway Co. to build an electric road from Atlanta to Anderson, S. C., a distance of about 170 miles.

The Hampshire Railroad Co. has been chartered to build a road from Green Spring Run to Romney, W. Va., passing through Moorefield and Petersburg.

Mr. F. L. Andress has been appointed soliciting freight agent of the Georgia Southern & Florida Railway Co. at Jacksonville, Fla., in place of Mr. E. W. Sears, transferred to Macon.

It is expected that the extension of the Churchland division of the Norfolk & Portsmouth Traction Co. to Suffolk, Va., will be completed by the time the Jamestown Exposition opens.

Walton, Wilson, Rhodes & Co. have, it is reported, been awarded a contract for the construction of a 20-mile extension of the Tennessee Railway, which now extends 28 miles from Oneida, Tenn.

Mr. A. F. Rust, resident engineer at Kansas City, Mo., of the Kansas City Southern Railway Co., denies a report that a survey is being made by his company between Mena and Paris, Texas.

James Smith and Hampton Johnson have been awarded contracts on the building of the 10-mile Catawba Valley Railroad, to run from Salem, Va., to Catawba Valley, tapping coal property and beds of glass sand.

Work has begun by the Braddock Heights & Jefferson Railroad Co. upon a three-and-a-half-mile trolley line along the ridge of the Catoctin mountain, in Frederick county, Maryland, connecting Braddock Heights and Jefferson.

Stockholders of the Houston Belt & Terminal Railway Co. will meet at Houston, Texas, September 20 for the purpose of considering a loan of \$5,000,000 to be used in constructing, completing, improving and operating the railway.

LUMBER

Lumber for Export.

The Fred Brenner Lumber Co., one of the largest of the kind in the South, and one of the recent additions to the enterprises of Salisbury, N. C., has begun operations and is now shipping lumber to Germany and other foreign countries. It is also supplying furniture factories at different points in the South, notably High Point, N. C., which is using great quantities of material from Salisbury yards.

The company is now employing 75 men, but within 30 days this number will be doubled. Shipments of lumber from all directions are being received every day, and the material is classed as it is put on the ground. Most of the highest class of lumber is now going abroad.

Mr. W. A. Best, secretary of the company, is now conferring with George Thompson, assistant traffic manager of the Southern Railway Co., for the purpose of having another yard crew added to the present force at Salisbury.

Purchases 4000 Acres of Timber.

With reference to recent reports of the purchase of a tract of timber near Brownsville, Tenn., the Rankin Lumber Co. of Henderson, Ky., advises the MANUFACTURERS' RECORD that it has purchased the timber on 4000 acres of the Major Shaw plantation, about 10 miles from Brownsville on the Big Hatchie river, and is now erecting a Prescott band-saw mill at the crossing of the Memphis branch of the Louisville & Nashville Railroad over the Big Hatchie river six miles south of Brownsville and 50 miles from Memphis. The timber consists of white oak, hickory, poplar and cypress, which is said to be of good quality and estimated to cut 10,000,000 feet. The company is building a boat and barges for transporting the logs to the mill, where the timber will be sawed and loaded on cars. It is expected to have the plant in operation by November 1, producing 25,000 feet of lumber daily.

To Develop Timber Lands.

A dispatch from Huntsville, Ala., states that the Alabama Coal, Iron & Lumber Co., recently incorporated by Chicago capitalists with a capital stock of \$1,000,000, has acquired 30,000 acres of timber and mineral lands in Paint Rock valley and is arranging for its development. It is announced that a railroad will be constructed from Gurley, on the Southern Railway, nine miles up the Paint Rock valley, the roadbed having already been graded to within a mile of the company's property. Estimates place the amount of timber on the lands at more than 500,000,000 feet, while the supply of coal and iron is said to be extensive. Officers of the company are Messrs. George E. McNeil of Chicago, president; George N. Ingle, vice-president and general manager, and J. L. Austin of Chicago, secretary-treasurer.

Mobile's Lumber Industry.

The annual trade review of the Mobile (Ala.) Register shows that the past year has surpassed all previous years in the shipment of lumber, both foreign and coastwise. The total exports of lumber aggregated 149,770,000 superficial feet, as compared with a total of 123,907,000 feet the previous year. Coastwise shipments aggregated 27,882,825 feet last year, as against a total of 18,022,478 feet the previous year. These figures indicate a total increase of 35,722,426 feet for last year over the previous one. In the exports of timber a large increase is also shown, the volume of business being greater the past year than for any season since 1902. The total exports of hewn and sawn timber amounted to 10,430,066 feet for last year,

as compared with a total of 8,080,320 for the previous year.

Timber and Mineral Development.

The McCormick Land & Lumber Co. of McCormick, S. C., has been organized with a capital stock of \$100,000 and has bought several thousand acres of mineral, farm and timber properties for development. The lands referred to include the McCormick estate, with the Dorn gold mines, and it is the intention of the company, beside developing the property resources, to lay the city lands off into streets and blocks, at the same time offering liberal inducements to settlers. Officers and directors of the company are Messrs. Jas. E. Britt, president and treasurer; B. F. Mauldin of Anderson, vice-president; J. Q. Stilwell, secretary and general manager; R. E. Lyon, Fred G. Brown, A. S. Farmer, Anderson, S. C.; R. F. Morris, Williston, S. C.; R. M. Fuller, T. J. Britt, W. H. Britt, McCormick.

Protection of Hickories.

The National Hickory Association has been organized for the purpose of fostering and preserving the present supply of hickory timber throughout the country. It is the intention of the association to influence the government if possible, through the bureau of forestry, to study the commercial phases of hickory timber with a view to encouraging its growth. Officers of the association are Messrs. J. W. Heron, Jr., Cincinnati, president; E. W. McCullough, Wilmette, Ill., vice-president; W. A. Snyder, Piqua, Ohio, treasurer; F. A. Curtis, Chicago, secretary.

Pensacola's Exports for August.

Although usually a dull month for export business, August of this year has shown an active trade at Pensacola, Fla., as indicated by custom-house figures. The leading exports have been lumber, sawn and hewn timber, rosin, cotton, phosphate and tobacco, beside a number of miscellaneous items, the total valuation of which is estimated at \$1,766,398. The following shipments were made during the month: Lumber and timber, 25,149,854 feet; rosin, 47,778 barrels; phosphate, 22,302 tons; cotton, 4169 bales; tobacco, 1762 hogsheads.

Wood-Turpentine Plant.

Messrs. H. T. Kennon, E. F. Coney and W. F. Parker of Brunswick, Ga., have organized a company for the purpose of erecting and operating a plant for distilling wood turpentine and by-products. The plant will be located on the railroad track near Brunswick, and will use the Flowers process of distillation. It is stated that by this process a fair grade of rosin is produced, in connection with the turpentine, which is very clear and contains very little oil. One of the principal by-products will be rosin oil.

Sawmill and Box Factory.

The Holley-Matthews Manufacturing Co. of Sikeston, Mo., will erect a sawmill and box factory at a cost of \$40,000. The product of the plant will be box shooks, of which it will have a yearly capacity of about 400 carloads. Officers of the company are Messrs. U. G. Holley, president, and W. H. Barnes, secretary. Mr. H. S. Hohn of Greenville, Miss., is the architect in charge of construction. The company desires prices on box-making machinery.

Messrs. Brown & Co. cleared the Norwegian steamship Fortuna from Brunswick, Ga., last week with a cargo of 42,000 cypress crossties to be delivered at Colon, Isthmus of Panama, and Messrs. Baxter & Co. cleared the steamer M. C. Holm with a cargo of 35,000 ties for the same port.

MINING

Coal and Timber Development.

Announcement is made at Chattanooga, Tenn., that Messrs. Robert Marshall, Dr. W. A. Longnecker and Melton A. McCormick of Pittsburg, Pa.; Charles W. Stauffer of Scottdale, Pa., and George A. Barnum of Cincinnati, Ohio, have purchased 6000 acres of coal lands in Marion county, Tennessee, which it is intended to develop at once. The property was acquired from the Chattanooga Coal, Iron & Railway Co., and is located on the edge of Marion and Hamilton counties, about 12 miles down the river from Chattanooga, having a river frontage of one and one-quarter miles and extending back to Walden's ridge. The purchasers contemplate organizing a company to have a capital stock of \$250,000 and will expend about \$150,000 for mining and other necessary equipment. Among the improvements contemplated will be the construction of an incline railway from the river to the top of the mountain to be utilized for hauling material to the site of operations and bringing coal and timber down. The timber on the property will be worked over and coal mines opened as soon as preliminary tests have been made.

Fuller's Earth Deposits.

Based upon the impetus which has recently been given the industry in Texas, it would seem that the development of fuller's earth deposits in that state is about to assume more importance than it has ever had. Several months ago the MANUFACTURERS' RECORD referred to the Somerville Development & Improvement Co. of Somerville, Texas, as preparing to develop fuller's earth deposits near that city, to facilitate which it was intended to erect and equip a plant at a cost of \$50,000. It is now announced that another company has been incorporated at Dallas for the purpose of developing fuller's earth and to build a plant near Burton, Washington county. The name of the new company is the Texas Fuller's Earth Co., incorporated with a capital stock of \$100,000 by Messrs. T. L. Bradford, Ben F. Orr, F. P. Webster, Nathan Adams, J. B. Lucas, S. H. Adams, Foster E. Lytle, S. J. Hogsett and W. H. Mansfield, all of Dallas.

Texas Quicksilver.

The output of quicksilver in the Turlingua and other districts of Brewster county, Texas, this year will considerably exceed that of last year, according to a dispatch from Austin to the San Antonio Express. During the past few months the development has been most marked, new furnaces having been placed in operation and new mines having been opened up. The development of the industry has been much retarded by the lack of railroad facilities, but it has advanced from 1000 flasks in 1899 to 4723 flasks in 1905.

To Mine Jellico Coal.

Organization has recently been effected of the Southern Jellico Fuel Co. of Jellico, Tenn., for the purpose of mining and selling Jellico and Blue Gem coal. Officers of the company are Messrs. J. L. Williams, president and treasurer; D. W. Jones, vice-president and general manager, who will also be in charge of the sales department, and J. C. Hoskins, secretary.

The Spanish steamer Gracia cleared from Pensacola, Fla., with a cargo of 280,661 pounds of copper, valued at \$50,000. It was shipped from the mines of the Tennessee Copper Co. at Isabella, Tenn., and will be delivered at Liverpool.

The annual convention of the Turpentine Operators' Association will be held at Jacksonville, Fla., September 11 and 12.

FOREIGN LETTERS

Wants Electrical Pumping Machinery

Enrique Moret, Pintor Sorolla No. 3, Valencia, Spain:

"I want a machine which I am sure will be in great demand here if terms are agreeable. What we wish is a pump to elevate water for domestic uses from artesian wells or springs in which the water stays at a depth of from three to six meters below the surface and of power enough to raise 2000 to 4000 liters per hour to a maximum height of 16 to 20 meters, the motive power to be electricity, and it is essential that the pump be economical and occupy very little space. As basis of computation we have here continuous current electricity of 120 volts. If we could find such a machine we would order one as a sample."

Wants to Represent Manufacturers.

Jules Coppe & Co., 41 Boulevard Joseph II, Charleroi, Belgium:

"We are representing a German manufacturer of anvils and a Sheffield tool-steel works, and regularly visit for these firms the ironmongers all over Belgium. We are desirous of obtaining several more agencies for products that will work in harmony with our present offerings, and will thank you to put us in correspondence with the likely manufacturers. We also regularly call on the iron and steel works, the window and plate-glass manufacturers and the collieries, and will be glad to find an American article that can be sold freely to these works."

Sugar Machinery Plant.

Western Machinery & Stores Co., Hornby road, Sitaram Buildings, Bombay, India:

"There is at present a great want of sugar-making and refining plants. Complete estimates for machinery capable of having a daily outturn of five tons and ten tons sugar are required. The process of rum is to be dispensed with altogether and sugar manufactured as is done in Mauritius and other islands, direct from juice. The plant is to be portable one which can be shifted from place to place. Full specifications with plan and detailed cost to be given. Catalogue price-list to accompany."

For the Bordeaux Exposition.

Jean Baylac, engineer, 58 Cours de l'Intendance, Bordeaux, France:

"If you desire to furnish your readers information in regard to the Exposition of Bordeaux you may say to them that I shall be pleased as 'delegate representative' to serve them in every way possible—first, in order to rent them space; second, in order to aid in the construction of pavilions, reception of merchandise, installation of stands, supervision of agents and sales, re-shipment of goods, etc. Manufacturers desirous of doing business in France can obtain my aid in making sales for a commission."

Cotton Goods, Linseed Oil and Razors.

Jacques Nahum, commercial representative, Smyrna, Turkey:

"The principal article I want is in cotton goods. It is known as 'cabot.' I also want to know manufacturers from whom I can obtain crude and boiled linseed oil and razors at good prices; also lampwicks, cotton sewing thread and other similar manufactures."

Machinery for Making Tin Tubes.

A. Leiwand, Newski 114, St. Petersburg, Russia:

"I take the liberty of asking you to direct me to a factory that makes machines for manufacturing tin collapsible tubes for paints and colors."

MECHANICAL

Single-Phase Induction Motors.

The field for the use of single-phase motors of moderate capacity is constantly growing by reason of the increasing tendency of central stations to generate polyphase current and feed a large portion of the lighting load through single-phase distribution. Power is frequently required near such circuits for the operation of light machinery, and it is conveniently furnished by the installation of Type IS, Form KG, single-phase motors built by the General Electric Co. of Schenectady, N. Y.

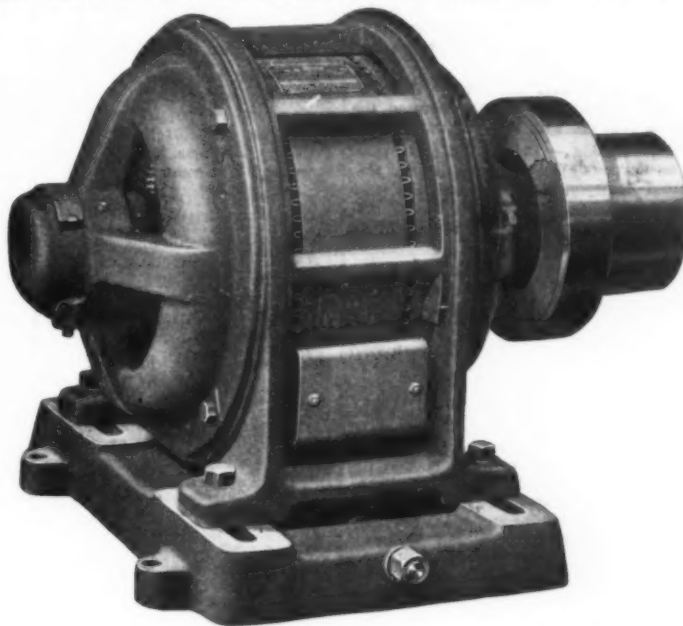
The new motors are of the same simple, sturdy design as the General Electric Co.'s polyphase induction motors, and are also similar in appearance. The frames are cylindrical in form with removable end shields, the position of which can be shifted 90 degrees or 180 degrees for wall or ceiling suspension, respectively. The fields are made up of a large number of thin punchings of the very best quality of soft steel assembled under heavy pressure between the end frames. Since this motor has no complicated internal automatic devices for starting, the resulting machine is of the simplest mechanical construction.

The armatures are of the high-resistance squirrel-cage type, consisting of a number of slotted soft-wheel discs assembled upon a shaft and carrying in the slots copper-bar windings which extend beyond the core at each end and are permanently connected to short-circuiting rings. The windings are similar to those of a three-phase motor, consisting of a large number of coils placed progressively in the slots. Some of the motors are fitted with three terminals, while the others have six terminals. The feet of the one-quarter and one-half horse-power motors are slotted to facilitate tightening the belt. With the larger motors iron sliding bases are provided for this purpose, although motors can be supplied without bases if so desired. All bases are designed for supporting motors when installed on floor, side wall or ceiling. Motors of one horse-power and larger are fitted with clutch pulleys, so that they can be started under full load while drawing only two to two and one-half times full-load current. The clutch is so arranged

placed by one of the desired diameter or by a pinion.

The motors are rendered self-starting by means of a starting box containing a resistance and reactance and a double-throw switch. This is first thrown to the starting position, and when the armature has attained almost full speed it is quickly thrown over to the running position, the object being to first throw the resistance

The standard motors are wound for 110 or 220 volts, 60 cycles, in sizes from one-quarter to five horse-power, inclusive. The standard winding for larger motors is 220 volts. Satisfactory operation can be expected over a range of voltage or frequency considered together of 15 per cent. either above or below normal. In addition, motors of all sizes with special windings and accessories for 50-cycle, and from



GENERAL ELECTRIC SINGLE-PHASE INDUCTION MOTOR.

reactance in circuit with the motor and later to disconnect it.

In the case of motors provided with six leads, the winding connections are changed through the starting box at the time of throwing over the switch from Y to delta connection. By this arrangement a starting torque of approximately 150 per cent. is obtained with 200 per cent. of full-load

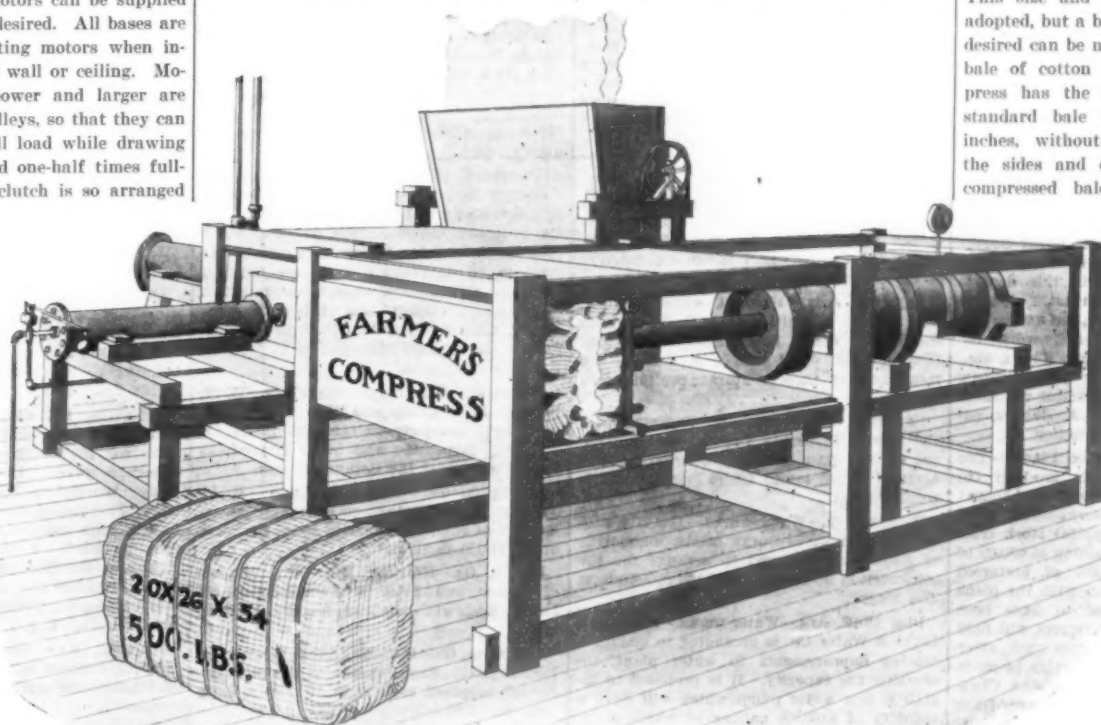
one-quarter to one horse-power, inclusive, for 40-cycle circuits, can be furnished to order by the General Electric Co.

When these motors are operated from the regular lighting circuits no appreciable effect is produced upon the lamps, provided the circuits are well laid out and supplied with sufficient transformer capacity; or, if preferred, they can be placed upon

which they may be direct connected with rigid couplings. When greater torque is required at the moment of starting, as in case of pumps under head, clutch couplings should be used. When gearing is to be employed the ordinary pulley can be removed from the clutch sleeve and a pinion substituted; this is preferably made of rawhide, in order to reduce the noise.

The Farmer's Compress.

Between production and finish there are processes in which the cotton farmer has great interest, and in recent years he has realized more than ever before the need of improved labor-saving machinery. One important phase of improved equipments of this kind is that for compressing cotton. The need of the cotton-grower has been a machine that will enable him to prepare his cotton on the plantation or at his neighbor's gin, ready for the spinner or exporter or his agents. It is claimed that this advantage is offered as the result of the invention of the Farmer's Compress, a view of which is presented by an accompanying illustration. This compress, it is stated, is easy of transportation and has capacity for handling the output of several gins in any one locality. The manufacturer of this compress briefly enumerates its advantages by the following statement: "The farmer hauls his cotton to the gin; from the gin it passes into the Farmer's Compress, where it is put into a rectangular bale of standard size and of far greater density than is given to it by the most ponderous compress. All the long list of costs, damages and losses, together with delays, are eliminated and the cotton is ready to be sold on the spot (just as it is automatically dropped from the compress) by the farmer himself to the agent of the spinner or exporter, who loads it at once and without rehandling it is off for its final destination." The bale made by this compress is 20x26x56 inches in size, which weighs about 500 pounds, the density being 30 pounds per cubic foot. This size and weight of bale has been adopted, but a bale of any size and weight desired can be made by the machine. The bale of cotton from the Farmer's Compress has the appearance of a perfect standard bale compressed down to 20 inches, without in any degree bulging the sides and ends, as is usual in re-compressed bales. It is claimed that



THE FARMER'S COTTON COMPRESS.

that pulleys of various diameters may be substituted for the ones ordinarily supplied. This is accomplished by the use of a sleeve, in connection with the moving member of the clutch, on which the pulley itself is carried. The sleeve is slotted and arranged to take standard pulleys, which are held in place by a key and set screw. Should it become necessary to change the pulley, it can be readily removed and re-

current. The small motors without clutch pulleys develop a starting torque of approximately 125 per cent. of full-load torque. The speed of an induction motor is regulated by the frequency of the supply circuit, and is not materially affected by variations of voltage, so that the motors will operate at full load at from 2 per cent. to 5 per cent. less than synchronous speed.

separate transformers. In either case, one kilowatt of transformer capacity should be allowed per horse-power of motors installed.

General Electric single-phase motors are well adapted to the operation of all kinds of machinery by means of belts and gears, or when direct connected to loads requiring only moderate starting torque, as in the case of generators, blowers, etc., to

this shape and reduced size make it possible to put much more cotton in a given space than has heretofore been done. The packer and compress can be built to take the cotton from any number of gins up to eight. A plant to illustrate the perfect advantages of this equipment is now in practical operation in Memphis, Tenn. The Farmer's Compress Construction Co., offices in the Real Estate Trust Building Philadelphia, Pa., manufactures this cotton compress.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Dadeville, Ala. — Water-works. — Hall Bros. are engineers in charge of the construction of water-works for which franchise was recently granted to local parties.

Gadsden, Ala. — Car Shops. — All contracts have been let by the Alabama Great Southern Railway for the erection of car shops reported at various times in this department; recently mentioned August 2. Walter E. Moragne has contract for the excavation work; W. H. Johnson for concrete work; for machine woodwork, sash, doors, lintels, etc., including over 500 sash, to the Southern Manufacturing Co., and the lumber contracts to mills in Etowah county. J. Hughes, engineer, is in charge of construction.

Gadsden, Ala. — Iron and Steel Plants. — The Southern Steel Co. held its meeting (to which reference has been made several times) on September 1, and the stockholders voted the proposed increase of capital stock from \$16,000,000 to \$25,000,000 by issuing \$5,000,000 of common stock and \$4,000,000 of preferred stock. This is in accordance with the plans that have been understood to have been made, and the company's directors will hold a meeting in New York city this week, after which announcements will probably be made as to the details of absorbing the Chattanooga Iron & Coal Co. and the Lacey-Buek Iron Co. This consolidation has been outlined in previous reports.

Gadsden, Ala. — Pipe Works. — It is stated that the Coosa Pipe & Foundry Co. is receiving bids on erection of an addition to soil-pipe department; addition to be 75x175 feet; to be used by the fittings molders, and will increase the plant's capacity by 50 per cent. Thirteen pipe floors are now in operation, the machinery is complete for five more, and probably 20 floors will be operated soon.

Helena, Ala. — Tunnel. — Louisville & Nashville Railroad is reported to build a tunnel 1400 feet long through Shade's mountain on the line of its new road between Helena and Pelham, Ala. W. H. Courtney, Louisville, Ky., is chief engineer.

Huntsville, Ala. — Timber and Mineral Lands. — The Alabama Coal, Iron & Lumber Co., capitalized at \$1,000,000, is reported as to develop about 30,000 acres of timber, coal and iron lands acquired in the Paint Rock valley. George A. McNeill of Chicago, Ill., is president of the company; George N. Ingle, vice-president and general manager, and J. L. Austin of Chicago, Ill., secretary-treasurer.

Mobile, Ala. — Coal Company. — John R. Simpson and others have incorporated the Simpson Coal Co. with \$6000 capital stock.

Scottsboro, Ala. — Cotton Gin and Warehouse. — Farmers' Warehouse & Storage Co., reported incorporated August 9 with \$9000 capital stock, has begun the erection of proposed gin and warehouse; gin capacity 40 bales; warehouse 100x240 feet.

Slocumb, Ala. — Cotton Gin and Warehouse. — Slocumb Gin & Warehouse Co. has been incorporated with \$5000 capital stock.

Thomasville, Ala. — Ice Plant. — Thomasville Ice Factory has been incorporated with \$5000 capital stock by W. C. Fritter and others.

ARKANSAS.

Argenta, Ark. — Paving and Sewers. — The city has granted petitions for the organization of paving and sewer districts, and the work contemplated will probably entail the expenditure of \$125,000 for paving and \$35,000 for sewers. No definite announcements can be made at present. Address The Mayor.

Dryden, Ark. — Wagon Factory. — J. H. Hiett, L. Sachs and Lee Drifos propose organizing company to establish wagon factory, also a sawmill.

Fort Smith, Ark. — Fruit Company. — Arkansas Fruit Co. has been incorporated with \$25,000 capital stock. H. W. Collier is president; W. B. Putnam, vice-president, and F. B. Luber, secretary-treasurer.

Fort Smith, Ark. — Furniture Factory. — Fort Smith Furniture Manufacturing Co. has been incorporated with \$50,000 capital stock by W. J. Echols, Ed Ballman, W. J. Johnston, E. C. Kropp, D. DuBois and others.

Helena, Ark. — Hardwood Company. — Tappan Hardwood Co. has been incorporated with \$10,000 capital stock. Sam W. Tappan is president; James A. Tappan, vice-president, and T. E. Tappan, secretary-treasurer.

Little Rock, Ark. — Timber and Developments. — It is stated that the A. J. Niemeyer Lumber Co. has purchased additional timber lands for development in Pulaski, Saline and Perry counties, and is planning the erection of a large lumber manufacturing plant near these new holdings.

Little Rock, Ark. — Sewers. — The city Sewer and Paving Committee has determined to instruct E. A. Kingsley, city engineer, to collect the data for the preliminary estimates for the proposed sewer construction to be undertaken.

Magnolia, Ark. — Sawmill. — Incorporated: Van Cleave Sawmill Co., with T. R. Van Cleave, president. J. G. Graham, B. L. Van Cleave, J. D. Wood and L. A. Brasher are mentioned as incorporators; capital stock \$15,000.

Nashville, Ark. — Sawmills. — Reported that the Brown-Henderson Improvement & Timber Co. has purchased and will develop 5300 acres of timber land. Large lumber plant is contemplated.

Osceola, Ark. — Water-works. — The city having sold its water-works bonds, amounting to \$29,000, will proceed to arrange for the construction of the proposed plant. Address The Mayor.

Pine Bluff, Ark. — Water-works. — Pine Bluff Light & Water Co. is arranging to make extensive improvements to water plant, increasing the capacity. It is proposed to install a new water pump which will have a capacity of 5,000,000 gallons of water daily, increasing the pumping capacity from 4,000,000 to 9,000,000 gallons daily. The construction of a storage reservoir with a capacity of 1,500,000 gallons is also being considered.

Siloam Springs, Ark. — Evaporating Plant. — J. B. Goodwin, O. J. Halliday and Chris Johnson propose forming company to establish evaporating plant.

Wynne, Ark. — Electric Plant. — City is reported as proposing to change electric-lighting plant from direct to alternating current, to extend the lighting wires and to lay more water mains. John M. Covy is manager of the plant.

FLORIDA.

Inverness, Fla. — Saw and Planing Mill. — West, Coffee & Co. will begin at once the construction of complete saw and planing mill; daily capacity 60,000 feet yellow-pine lumber. Machinery has not been purchased.

Jacksonville, Fla. — Ice Plant. — Incorporated: Municipal Ice Co. with capital stock of \$100,000 to manufacture ice; W. S. Ware, president; H. D. Stratton, vice-president; F. S. Mulford, secretary, and W. S. Ware, treasurer and general manager.

St. Augustine, Fla. — Paving Improvements. — City will soon begin street-improvement work which will require 500,000 vitrified paving bricks and 6000 lineal feet of granite curb. L. L. Simms, Box 705, is chairman of street and lane committee.*

GEORGIA.

Adairsville, Ga. — Cannery. — Georgia Fruit Packing Co. contemplates enlarging its cannery.

Adairsville, Ga. — Water-works. — City has called an election for September 8 to vote on issuing bonds for the construction of its proposed water-works previously mentioned. Plans and specifications have been prepared. Address The Mayor.

Atlanta, Ga. — Street Paving. — Street Committee will receive bids at once for paving Peachtree street, Broad street from Marietta to Peachtree street, and Capitol Square, and bids are asked for both asphalt and bituminous pavement. R. M. Clayton is city engineer.

Atlanta, Ga. — Candy Factory. — The Nunnally Company, 59 Joy street, will erect addition to candy factory covering 45x75 feet, five stories high, equipped with machinery for manufacturing candy; cost of buildings and equipment \$30,000; mentioned last week.

Atlanta, Ga. — Plow Works. — Atlanta Plow Co., reported incorporated recently with capital stock of \$50,000, has let contract for erection of building, which will be equipped for manufacturing steel shapes, single and double plow stocks, plows, repairs, etc. Contract for machinery has been signed. J. B. Hightower is president, and George W. Brown, general manager.

Atlanta, Ga. — Steel Plant. — Atlanta Steel Hoop Co. has begun construction work required for proposed extensive improvements to its plant; about \$75,000 to be expended. It is stated that a galvanizing equipment will be installed to enable the works to produce steel wire for electrical purposes, all sizes of commercial wire, barbed wire for fencing, etc.; also that a plant for manufacturing railroad spikes will be added to present work.

Brunswick, Ga. — Telephone Improvements. — Southern Bell Telephone Co., main offices, Atlanta, Ga., will begin within a few weeks its proposed improvements to cost about \$100,000. Among the betterments will be the erection of three-story exchange building and new switchboard to accommodate 2000 telephones, provision being made at first for 1000. Conduits will be laid through the business section and all wires put under ground; previously reported.

Brunswick, Ga. — Turpentine Plant. — H. T. Kennon, E. F. Coney and W. F. Parker will organize a company to establish plant for distilling turpentine and other by-products from wood, using the Bethune process.

Covington, Ga. — Steam Laundry. — E. H. Jordan contemplates establishing steam laundry of sufficient capacity to do the work of 100 to 150 families.*

Dalton, Ga. — Knitting Mill. — Karl Bivings of Dalton and John D. Donaldson of St. Louis, Mo., will establish hosiery knitting mill.

Dickerson, Ga. — Cotton Gin. — E. D. Roberts, Lagrange, Ga., has contract for the construction of proposed cotton gin to have a daily capacity of 40 bales.

Dublin, Ga. — Ice Plant. — A. & N. M. Block of Macon, Ga., operating ice plant with a daily capacity of five tons, contemplate increasing capacity to 40 tons daily, about \$30,000 to be expended.

Fitzgerald, Ga. — Compress. — Incorporated: Fitzgerald Compress & Warehouse Co., capitalized at \$100,000, by S. B. Brown, J. R. Whitehead, Thomas Nesbitt and others.

Fitzgerald, Ga. — Lumber. — Incorporated: Rebecca Lumber Co., capital stock \$60,000, by F. O. Whitehead, W. T. Hurmond and T. M. Wilbanks.

Heardville, Ga. — Gold Mining. — G. W. Heard is arranging for the development of gold deposits recently discovered on his property.

Marietta, Ga. — Water-works. — City will probably order an election to vote on issuing \$80,000 in bonds for water-works. Address The Mayor.

Moreland, Ga. — Cotton Gin. — White Oak Gin Co. has been incorporated with \$3700 capital stock by L. W. Bowers, T. J. Young, J. T. Bexley, J. T. Chestnut and others.

Waynesboro, Ga. — Cottonseed-oil Mill and Fertilizer Factory. — Edwin Fulcher, S. Schwarzweiss, S. C. Jones, Thomas Quinney, E. H. Blount and others have incorporated the Burke County Oil & Fertilizer Co. with \$25,000 capital stock.

Summerville, Ga. — Cotton Mill. — Reported that company reported organized in July is about to begin erection of cotton mill; John D. Taylor of Summerville, president, and Ralph L. Wilson of Lindale, Ga., superintendent.

Washington, Ga. — Water-power-Electrical Plant. — Anthony Shoals Power Co., organized by J. H. and T. M. Fitzpatrick and associates for the development of the water-power of Anthony shoals on Broad river, mention of which was made November 30, 1905, has decided to increase capital stock to \$5,000,000, and arrangements are now being perfected for financing the enterprise. Previous reports showed the company's purpose to be the construction of a 30-foot dam across Broad river and the building of an electric plant for transmitting the power obtained to Washington and other points for industrial and power purposes.

KENTUCKY.

Ashland, Ky. — Coal Mines. — Lock Haven Development Co. has been incorporated with \$100,000 authorized capital stock by J. M. M. Stewart, M. F. Fleming, S. S. Willis, Lon Wilson and Thomas Bogges.

Glasgow, Ky. — Flour and Grist Mill. — Reports state that J. Tom Smith is investigating site for the location of flour and grist mill.

Henderson, Ky. — Tobacco Factory. — Dibrell Bros. of Danville, Va., and S. A. Glover of Richmond, Va., operating as the Dibrell-Glover Corporation, have purchased the factory of D. J. Burr Reeve & Co. and will engage in a general leaf-tobacco and stemming business.

Henderson, Ky. — Road Improvements. — City will hold an election in November to vote on issuing \$175,000 of bonds for road improvements. Address The Mayor.

Hickman, Ky. — Hardware. — Hickman Hardware Co. has been incorporated with capital stock of \$10,000 by M. A. Johnston, J. F. Dodds and S. L. Dodds.

Lexington, Ky. — Medicine Factory. — Kentucky Remedy Co. has been incorporated with capital stock of \$15,000 by J. B. Payne, James H. Edmondson and George Payne.

Louisville, Ky. — Tobacco Factory. — American Tobacco Co., general offices in New York, has taken out permit for erection of its proposed addition to Louisville factory; building to be of brick, two stories high, 140x321 feet; cost \$40,000.

Louisville, Ky. — Sewerage System. — City will vote in November on a \$4,000,000 bond issue for the construction of its proposed sewerage system. On June 28 Harrison P. Eddy, Worcester, Mass., and Samuel M. Gray, Providence, R. I., were mentioned as having been appointed consulting engineers for this work. I. B. F. Bruce, Room 503 Equitable Building, is engineer in charge. P. L. Atherton is chairman, and Charles P. Welner, secretary sewerage commission, 505 Equitable Building.

Paducah, Ky. — Street Paving. — Memphis (Tenn.) Asphalt & Paving Co. has contract at \$33,870.03 for street and sidewalk improvements.

Upton, Ky. — Water-works. — W. R. Gaddie has purchased the springs on the old Upton estate and will establish water-works plant to cost between \$300 and \$400 for furnishing the town with water.

Wheatcroft, Ky. — Brick and Tile Works. — Incorporated: Wheatcroft Brick & Tile Co., with capital stock of \$9000, by A. E. Cullen, C. E. Severin, J. E. Strain and H. F. Cullen.

LOUISIANA.

Carencro, La. — Water-works. — Contract was awarded, as reported last week, for construction of municipal water-works. Successful bidder was P. H. Porter of Louisville, Ky., at \$11,170; Ira W. Sylvester of Alexandria, La., engineer in charge.

Crowley, La.—Electric-light and Water Works.—It is said that the city will arrange to open bids in October for the construction of proposed water-works and electric-light plant previously mentioned. Probably bonds for \$100,000 will be sold in this connection. Geo. W. Horton is city clerk.

Hammond, La.—Woolen Mill.—Hammond Woolen Mills has been organized with capital stock of \$75,000 by C. N. George, J. A. Lackey, W. C. Fontaine and others to build woolen mill.

Hammond, La.—Ice Plant.—M. P. Hazel is architect and engineer in charge of the construction of 50-ton ice plant reported last week to be erected by J. B. Nalty, Brookhaven, Miss.

Jennings, La.—Oil Wells.—Franklin Oil & Mineral Co. has been organized by J. Sully Martel and J. M. Caffery.

Jonesville, La.—Cottonseed-oil Mill.—The organization of a \$10,000 stock company is being considered for the establishment of cottonseed-oil mill, and Dr. A. Marable of Vidalia, La., is interested.

Jonesville, La.—Electric-light Plant.—Town is considering the establishment of electric-light plant. Address Town Clerk.

Lake Charles, La.—Construction Company. Chartered: D. P. Cullen Company, Ltd., with \$35,000 capital stock. Daniel P. Cullen is president and general manager; William A. Cross, secretary-treasurer, and James T. Levins, vice-president.

Lake Providence, La.—Compress and Gin. A. B. Sanders will build cotton compress and gin; mill construction for buildings; electric-lighting fixtures.

Mermentau, La.—Rice Mill.—Conover Rice Milling Co. has been incorporated with \$30,000 authorized capital stock by W. B. Conover, Matt Yaples, F. Bliss, George Conover and George B. Conover.

New Orleans, La.—Alcohol Distillery.—It is reported that a plant for the distillation of denatured alcohol from the refuse of sugar refineries will be erected by St. Louis and Chicago capitalists, and that Z. T. Tinker, president Security Brewery, with offices in St. Louis, Mo., is interested.

New Orleans, La.—Spices, Teas, etc.—Standard Import Co., Ltd., has been chartered with \$25,000 capital stock to manufacture, pack and sell spices and teas of all kinds. E. B. Charbonnet is president; Joseph Tascell, vice-president, and Alvin E. Echert, secretary-treasurer.

New Orleans, La.—Patents, etc.—Incorporated: The Simplex Co., with capital stock of \$50,000, to develop certain patents; Morris Levy, president, and J. Aron, secretary.

New Orleans, La.—Construction Work.—Incorporated: R. A. Bursley & Co., capitalized at \$75,000, for manufacturing bridges, undertaking construction work, etc.; R. A. Bursley, president; William M. Rhodus, secretary-treasurer.

New Orleans, La.—Levee Construction.—Orleans Levee Board has awarded contract to General Contract Co. for levee work. Bid was \$35.35 per 1000 board feet for cypress and \$54 per 1000 board feet for creosoted pine. For enlarging levee the bid was 39½ cents per cubic yard.

New Orleans, La.—Cypress Lumber.—Incorporated: The Fair Cypress Co. with capital stock of \$150,000 by Max Sondheimer, Arnor W. Fair, Edgar H. Farrar, Jr., and others.

New Orleans, La.—Paving Improvements.—The mayor has signed the ordinance calling for the paving of Howard street, and the municipal officials are expected to complete the details, estimates, etc., in the near future. Address The Mayor.

New Orleans, La.—Optical.—Incorporated: Globe Optical Co., capitalized at \$20,000, with Henry M. Robert, president; H. J. Robert, vice-president, and Fred W. Robert, secretary.

New Orleans, La.—Cold-storage Plant.—Columbia Brewing Co. is erecting four-story brick cellar, cemented front, for the storage of beer, having a capacity of 8000 to 10,000 barrels. About \$40,000 will be invested. J. Retteunier, engineer in charge, and Julius Koch, architect; office, 520-538 Elysian Fields avenue.

Winnfield, La.—Gas-pipe Lines.—J. S. White & Co. have received franchise to lay gas-pipe lines.

MARYLAND.

Annapolis, Md.—Street Improvements.—City is consulting with engineers relative to the preparation of plans and specifications for street improvements, for which \$25,000 worth of bonds was voted recently. Address Chairman of Street Committee Jas. F. Strange.

Baltimore, Md.—Bakery.—Rice Bros. Co., 312 North Gay street, will erect an addition to its bakery at 817, 819 and 821 Mechanics court.

Baltimore, Md.—Coffee-roasting Plant.—The National Coffee Roasting Co. has been incorporated with capital stock of \$10,000 by E. John Nichols, 1257 Calvert Building, St. Paul and Fayette streets; I. Harvey Nichols, John T. Lowe, J. Frederick Douty and W. Stuart Symington, Continental Building, Baltimore and Calvert streets.

Baltimore, Md.—Paving.—The municipal Board of Awards has awarded contracts to Warren Bros. Company, Boston, Mass., for paving Whitelock street with bitulithic at its bid of \$23,979; to Maryland Pavement Co., 6 East Lexington street, Baltimore, Md., for paving 20th street with asphalt blocks at its bid of \$4461, and to A. F. Gantz Construction Co., Hoffman Building, 11 East Lexington street, Baltimore, Md., for paving Ducatel street with vitrified brick at its bid of \$3830. This work will all be done under the Commissioners for Opening Streets, J. Arthur Wickham, president, Hoen Building, Lexington and Holliday streets.

Baltimore, Md.—Reinforced Concrete Construction.—The Kemp Concrete Construction Co. has been incorporated with capital stock of \$50,000 to construct reinforced concrete work by Solomon M. Kemp, 813 North Mount street; W. Wallace Montgomery, Forest Park; William Montgomery, Jr., William B. Fink, 3500 North Charles street, and Oscar C. Martenet.

Baltimore, Md.—Grain Storage Bins.—H. W. Kapp, general agent Pennsylvania Railroad Co., is credited with the announcement that the company will erect grain storage bins to be operated in connection with elevator No. 3 at Canton. Bins with a capacity of 500,000 and 1,000,000 bushels are being considered. They will be constructed of reinforced concrete.

Baltimore, Md.—Paving.—The municipal Board of Awards has awarded the following paving contracts: Bitulithic, Warren Bros. Company, Boston, Mass., Madison street, \$6854; Park avenue, \$12,133; Mosher street, \$1987, and Riverside avenue, \$18,994. Asphalt blocks, Maryland Pavement Co., 6 East Lexington street, Baltimore, Md., North avenue, \$42,914, and Robert street, \$3014. Sheet Asphalt, Filbert Paving & Construction Co., 1210 Block street, Baltimore, Md., Gough street, \$27,324, and Ostend street, \$9149. All of this work will be done under the supervision of B. T. Fendall, city engineer, City Hall.

Greensboro, Md.—Bridge.—Caroline county will construct a bridge over the Choptank river at Greensboro of concrete and steel, 200 feet in length, to cost between \$5000 and \$6000. Address Clerk to County Commissioners.

MISSISSIPPI.

Clinton, Miss.—Laundry and Ice Plant.—J. W. Provine, John James, W. T. Lowrey, P. S. Stovall, A. G. Graham and others have incorporated the Clinton Laundry & Ice Manufacturing Co. with a capital stock of \$10,000.

Ellisville, Miss.—Land Improvement.—Jones County Farm Land Co. has been incorporated with a capital stock of \$30,000 to deal in farm and timber lands; incorporators, J. W. Speed, J. A. Tinnon, W. A. Eastering, R. L. Garrick, B. F. Fridge and others.

Ellisville, Miss.—Sawmill.—Anchor Sawmill Co. has begun the erection of band-saw mill, replacing present circular-saw mill. The mill building is of frame, 32x150 feet; boiler-room, 38x42 feet; engine-room, 20x32 feet; flerom, 26x32 feet; trimmer shed, 30x40 feet; lath mill, 20x20 feet; daily capacity, 50,000 feet. W. T. Craft is architect, and James Johnson, engineer in charge.*

Greenville, Miss.—Sawmill and Box Factory.—Holley-Matthews Manufacturing Co. of Sikeston, Mo., will erect sawmill and box factory. About \$40,000 will be expended in buildings and equipment; annual capacity 400 cars box shooks; H. S. Hoen, architect.*

Gulfport, Miss.—Harbor Improvements.—It is reported that the Gulf & Ship Island Railroad Co., J. T. Jones, president, will undertake harbor improvements, including the erection of another pier, to double present facilities.

Hattiesburg, Miss.—Foundry and Machine Shops.—Union Manufacturing & Supply Co. has been incorporated with \$200,000 capital stock by W. F. Post, O. R. S. Pool and R. P. Anderson. Site has been secured and buildings will be erected at once. It is proposed to manufacture sawmills complete, engines, boilers and other heavy machinery and supplies.

Vicksburg, Miss.—Levee Work.—Contracts

for levee work have been let as follows: To Robert Nicholson of Salem, Miss., contract to build the Mascot levee in East Carroll parish, Louisiana, amounting to 75,000 yards, and to Donovan & Daley of Lake Providence, La., contract for levee below Mayersville, amounting to 170,000 yards.

Wesson, Miss.—Steam Laundry.—S. P. Bloom is reported as to establish steam laundry.

Winona, Miss.—Foundry and Machine Shop.—Romberger Foundry & Machine Co. is the correct title of company reported incorporated last week to operate foundry and machine shop; capital stock \$25,000. Arrangements will be made at once for the erection of building 50x60 feet; H. R. Romberger, engineer in charge; R. Jesty & Co., architects. About \$10,000 will be invested.*

MISSOURI.

Aurora, Mo.—Sewerage System.—Incorporated: People's Sewer Co. with \$3000 capital stock by J. B. McGuffin, W. H. Scott, T. A. Miller and others.

Jefferson City, Mo.—Power Plant.—Jefferson City Light, Heat & Power Co. is said to be considering the rebuilding of its power plant and outside lines.

Joplin, Mo.—Concentrating Plant.—Disbrow Mining Co., reported chartered last week with \$50,000 capital stock, will build concentrating plant of 200 tons capacity daily for zinc-ore rock; cost of buildings and equipment \$15,000; F. A. Wallower, engineer in charge.

Kansas City, Mo.—Atmospheric Condensers. Atmospheric Condensation Co., reported incorporated last week with capital stock of \$50,000, manufactures Pennell's flask-system surface condensers for atmospheric pressure for the use of ice plants especially; also for steam-power plants located where condensation feed for boilers is an important economy, as saturating air can be used as cooling agent. Arthur Pennell is president; H. F. Lea, vice-president; M. F. Smith, secretary, and S. D. Knapp, treasurer. Manufacturing is attended in other shops by contract.

Kansas City, Mo.—Elevators.—Chartered: Murray Elevator Co., capitalized at \$50,000, by C. M. Carter, H. J. Nelson, Dale Hurman and others.

Neosho, Mo.—Water-works.—City has completed arrangements for the construction of water-works, for which \$400,000 of bonds were reported August 2 as voted, and bids for the construction will be opened September 20; Burns & McDonnell, 709-10 Dwight Building, Kansas City, Mo., engineers; Horace Bowers, mayor.*

St. Joseph, Mo.—Pump and Mining Company.—St. Joseph Pump & Mining Co. has been incorporated with \$50,000 capital stock by E. A. King, W. P. Fulkerson, A. B. Culver and others.

St. Louis, Mo.—Cement Manufacturing.—Incorporated: Flexolith Manufacturing Co., by John McMenamy, Edmund Barker, Geo. S. Hoke and Geo. F. Bennett, to manufacture and deal in all kinds of cement; offices at 465 Marchants-Laclede Building; capital stock, \$5000.

St. Louis, Mo.—Foundry.—Incorporated: Liberty Foundry Co., by C. Edward Wotters, Thomas Mellow, Charles H. O'Laughlin, Frank Vanek, C. A. Stevens, Sam Richards, E. W. Demay, Edward Blahovec, W. P. Botts; capital stock \$6000.

St. Louis, Mo.—Manufacturing.—Incorporated: Charles J. Johnson Manufacturing Co., capital \$5000, by W. E. Anderson, Charles J. Johnson, Ben R. Leavell and others.

St. Louis, Mo.—Ice Manufacturing.—Incorporated: Falstaff Manufacturing & Mercantile Co., by Joseph W. Belohradsky, Herman A. Buenemann, Bruno E. Seemann, Charles J. Wheelan and Rudolph Ronenberger, to manufacture and deal in malt liquors and ice; capital stock \$20,000.

St. Louis, Mo.—Mining.—Chas. A. McNair, A. P. De Camp, William Yule of St. Louis, M. J. Watkins of Bourbon, Mo., and W. S. Cox of Cuba, Mo., have incorporated the Rock Island Mining Co. with \$30,000 capital stock.

St. Louis, Mo.—Brick Works.—Evans & Howard Fire Brick Co. has acquired 200 acres of land in St. Louis county on which to establish fire-brick plant. About \$250,000 will be invested, and equipment will be installed for increasing the present output.

Webb City, Mo.—Mining.—T. P. Lennon, Temple Chapman, A. N. B. Arnold and others have incorporated the Red Dog Mining Co. with \$100,000 capital stock.

Webb City, Mo.—Mining.—Newborn Mining Co. has been incorporated with \$100,000 capital stock by Temple Chapman, T. F. Lennon and P. H. Janey.

NORTH CAROLINA.

Asheville, N. C.—Reservoir.—Faragher Engineering Co. of Cleveland, Ohio, has contract at \$44,462 for building 5,000,000-gallon reservoir mentioned August 2; to be of reinforced concrete.*

Burlington, N. C.—Hosiery Mill.—G. W. Fogleman and others have incorporated the Burlington Hosiery Mills Co. with capital stock of \$20,000.

Charlotte, N. C.—Road Improvements.—Mecklenburg county will vote November 6 on the issuance of \$200,000 of bonds, a portion of which will be used in extending the macadam roads. Address County Clerk.

Charlotte, N. C.—Grading Work.—W. J. Oliver & Co., Knoxville, Tenn., have contract for grading the grounds for the new shifting yards of the Southern Railway. About \$100,000 will be expended and 300,000 yards of earth removed.

Franklin, N. C.—Furniture Company.—Cooke Furniture Co. has been incorporated with \$12,000 capital stock by B. F. Cooke and others.

Gastonia, N. C.—Electric Plant.—The city has received three Westinghouse transformers, 150-kilowatt machines, which will be installed at once, and the use of a steam plant will be discontinued when the Spencer Mountain Power Co. begins to supply electricity from its water-power-electrical developments, expected to be completed within two months. Address The Mayor.

Greensboro, N. C.—Furniture Company.—Guilford Furniture Co. has been incorporated with \$6000 capital stock by J. A. McDuffie, A. E. Fordham of Greensboro, C. H. Foy and H. A. Foy of Kinston, N. C.

Lexington, N. C.—Blowpipe Works, etc.—Chartered: Continental Blowpipe Co., with an authorized capital stock of \$50,000, by W. H. Walker, J. W. Crowell, J. R. McRary and others, to establish a complete blowpipe system, manufacture dust collectors, furnace feeders, exhaust fans, etc.

Lexington, N. C.—Case and Trunk Factory. Reported that the Vega Suitcase & Bag Co., Mr. Fallenstein, manager, Philadelphia, Pa., will build a large case and trunk factory in Lexington.

Lowell, N. C.—Electric-power Plant.—The Manufacturers' Record is informed that the Spencer Mountain Power Co. expects to complete its water-power-electrical developments within two months and to furnish about 10,000 horse-power by electricity for lighting and power purposes in Lowell, Gastonia and other cities. W. T. Love is president, and John C. Rankin, manager.

Monroe, N. C.—Brick Works.—Monroe Brick Co. has been incorporated with \$2100 capital stock.

Oxford, N. C.—Sewerage System.—City is considering the construction of sewerage system, for which surveys have been made. R. B. Hines is town clerk.

Salisbury, N. C.—Distillery.—Chartered: Simerson Distilling Co., with \$15,000 authorized capital stock, by H. L. Simerson and others, to operate whiskey distillery.

Washington, N. C.—Sand-lime-brick Plant.—Novelty White Brick Co., reported incorporated last week, will erect plant for the manufacture of sand-lime bricks; capacity of 20,000 brick per day of 10 hours. About \$30,000 will be invested. Orders for machinery have been placed. E. S. Simmons is president; C. H. Wallace, secretary-treasurer, and W. E. Jones, vice-president and general manager.

Wilson, N. C.—Fertilizer Factory.—Hadley, Harris & Co. will expend \$10,000 for additional facilities, mainly the erection of 50x100-foot storage-house. (Mentioned last week.)

Winston, N. C.—Woolen Mill.—Chatham Manufacturing Co. of Elkin, N. C., has received plans for the erection of its proposed new woolen mill, recently reported as to be established at Winston. Fine woolen blankets will be manufactured. Company's capital stock has been increased from \$50,000 to \$350,000 in this connection.

SOUTH CAROLINA.

Aiken, S. C.—Street Improvements.—City will expend about \$5000 for improvements on Park avenue and Laurens street, laying crushed stone or cement gravel on the roadways and stone curbing on Laurens street. J. L. McCarter is city clerk.

Bamberg, S. C.—Furniture and Hardware.—Incorporated: Bamberg Furniture & Hardware Co., capital \$3000, by E. C. Hays, John Cooner and G. O. Simmons.

Columbia, S. C.—Electric Plant.—Garren Electric Co. has been incorporated with \$10,000 capital stock by U. R. Brooks, Jr., Luther Garren and S. T. Carter.

Gaffney, S. C.—Bottling Works, etc.—Lipscomb Silica Springs Co., reported incorporated last week with \$5000 capital stock,

will establish plant for bottling mineral water and soft drinks, also build 40-room hotel and cottages. Wm. S. Lipscomb is president; S. M. Lipscomb, treasurer, and A. T. Woods, manager.

McCormick, S. C.—Lumber Plant.—McCormick Land & Lumber Co. has been organized with capital stock of \$100,000, purchased and will develop several thousand acres of timber land, erecting a large manufacturing plant; James E. Britt, president; B. F. Mauldin of Anderson, S. C., vice-president, and J. Q. Stillwell, secretary and general manager.

McCormick, S. C.—Cotton Mill.—Reported that McCormick Land & Lumber Co. will build a cotton mill.

Rock Hill, S. C.—Cotton Mill.—Arragon Cotton Mills has let contract to T. C. Thompson & Bros. of Birmingham, Ala., for erection of buildings for its proposed plant. The company was reported organized, etc., in June and as to build a cotton factory of 20,000 spindles and 600 looms.

Spartanburg, S. C.—Water-power-Electrical Plant.—Several weeks ago mention was made at length of the plans of the Spartanburg Electric Power Co. for developing water-power on the Broad river. It is now understood that the construction of the dam is about to begin and that it will develop 10,000 horse-power for transmission by electricity. C. M. Pritchett of Gaffney, S. C., is resident engineer for the company. J. E. Serrine, Greenville, S. C., is chief engineer.

Spartanburg, S. C.—Land Company.—Incorporated: Broad River Land Co., by Stanyarne Wilson, Horace L. Bonar and Henry W. Thomas; capital stock \$25,000.

TENNESSEE.

Athens, Tenn.—Road Improvements.—Reported that McMinn county has voted \$200,000 of bonds for road improvements. Address McMinn County Commissioners.

Brownsville, Tenn.—Sawmill.—R. W. Haralson & Son will rebuild sawmill recently reported burned. Buildings and equipment, which has been contracted for, will cost \$3000.

Brownsville, Tenn.—Timber Development.—Rankin Lumber Co. of Henderson, Ky., has purchased 4000 acres of timber land 10 miles from Brownsville, consisting of white oak, hickory, poplar and cypress, aggregating about 10,000,000 feet, which will be developed. A band-saw mill of 25,000 feet daily capacity is being erected six miles from Brownsville on the Memphis branch of the Louisville & Nashville Railroad. A boat and barges for barging the logs to the mill are also being built.

Chattanooga, Tenn.—Coal-land Developments.—Robert Marshall of Pittsburg, Pa.; Melton A. McCormick, also of Pittsburg; Charles W. Stauffer of Scottsdale, Pa., and George A. Barnum of Cincinnati, Ohio, have purchased 6000 acres of coal land in Marion and Hamilton counties and will organize a \$250,000 stock company to develop the property. One of the first plants to be installed will be an incline railway from the river to the top of Walden's Ridge to haul up materials and machinery and bring down coal and timber. It is reported that \$150,000 will be expended for working improvements.

Chattanooga, Tenn.—Stave Mill.—Incorporated: Dade Stave Manufacturing Co., capital stock \$20,000, by W. F. Mullen, L. Vanderbeek, W. J. Moorman and others.

Clarksville, Tenn.—Stave Factory.—Kentucky Stave Co., F. W. McKee, vice-president, will arrange for the manufacture of tight-barrel staves; daily capacity 10,000. A small mill shed will be erected. Equipment has been purchased.

Cleveland, Tenn.—Creamery.—Golden Dixie Creamery Co. will be organized with R. P. Murphy, general manager, to establish a creamery; building to be of concrete, 44x60 feet; capacity to be 20,000 pounds daily of milk products; cost of buildings and equipment \$4500; H. G. Murphy, Lynchburg, Ohio, architect in charge. It was reported last week that a \$5000 stock company was proposed to build a creamery.

Helenwood, Tenn.—Coal Mines.—B. A. Treat and associates have purchased the Scott County Coal Co. and properties, recently referred to. The lease includes 6500 acres of coal lands, and the mines at present have a daily capacity of 150 tons, which it is contemplated to increase. It is also probable that electrical haulage equipment will be installed and some other improvements made.

Humboldt, Tenn.—Steam Laundry.—C. H. Ferrell is erecting a concrete-block building which will be equipped as steam laundry and operated by J. S. Rust of Mauldin, Mo.

Jellico, Tenn.—Coal Mines.—Southern Jellico Fuel Co. has been organized for the purpose of developing coal mines. Its president is J. L. Williams; secretary, J. C. Hoskins, and general manager, D. W. Jones.

Knoxville, Tenn.—Woodworking Plant.—J. Wylie Brownlee is in correspondence with a Grand Rapids (Mich.) company which contemplates establishing a woodworking plant in Memphis.

McKenzie, Tenn.—Street Paving.—Costen, Moore & Co. have contract to lay concrete walks in the city.

Memphis, Tenn.—Steamboat Company.—Patton-Tully Transportation Co. has been incorporated with \$100,000 capital stock by L. E. Patton, C. J. Tully, C. E. Patton, S. B. Anderson and H. B. Anderson to operate a line of steamboats for both passengers and freight.

Memphis, Tenn.—Grain Company.—Chartered: Charles B. Jones Company, with \$50,000 capital stock, by Charles B. Jones, Caruthers Ewing, R. B. Sims, C. H. Williams and H. H. Barker.

Memphis, Tenn.—Electric Plant.—Memphis Street Railway Co. has received permit for erection of its proposed new power-house, to cost \$40,000, of steel construction with fire-proof walls, contract for which was awarded recently to the Selden-Breck Construction Co. of St. Louis, Mo., and Memphis.

Nashville, Tenn.—Abattoir.—Neuhoff Abattoir & Packing Co. reports it is building abattoir plant; chillroom 46x54 feet, boiler-room 20x30 feet; cost \$20,000—buildings and equipment; John Bouchard, engineer in charge; previously mentioned.

Nashville, Tenn.—Medicine Factory.—Cook Medicine Co. has been incorporated, increased capital stock to \$25,000 and will extend its manufacturing facilities.

Trenton, Tenn.—Cotton Mill.—Reported that H. Smith of Athens, Ala., will establish a cotton mill, probably using equipment previously purchased.

Watertown, Tenn.—Broom Factory.—It is proposed to organize company for the establishment of broom factory. For information address Box 96.*

TEXAS.

Alice, Texas.—Telephone System.—Alice & Rio Grande Telephone Co. has been incorporated with capital stock of \$10,000 by Felix Hobbs, J. S. Turner and Phil Hobbs.

Attoyac, Texas.—Sawmill.—Attoyac River Lumber Co. has been incorporated with \$75,000 capital stock and will develop several thousand acres of timber land in Nacogdoches county. A band-saw mill with a capacity of 70,000 to 80,000 feet daily is being erected. J. P. Carter is president; H. M. Carter, vice-president, and C. M. Duncan, secretary; main office, Houston Land & Trust Building, Houston, Texas.

Bay City, Texas.—Irrigating Plant.—Reported that Trespalacios Rice & Irrigation Co. is preparing to install an irrigating plant to supply 12,000 acres of land.

Beaumont, Texas.—Oil Wells.—Pine Island Oil Co. has been incorporated with capital stock of \$5000 by W. W. Cunningham, E. C. Ogden and others.

Beaumont, Texas.—Paving, Sewers, etc.—An election is called for September 27 by the city for the purpose of voting a further bond issue as follows: Sewerage, \$75,000; paving, \$25,000, and school building, \$30,000. E. A. Fletcher is mayor.

Bedias, Texas.—Artificial Lake.—International & Great Northern Railroad is reported as having surveys made for the building of a large artificial lake. Leroy Trice, Palestine, Texas, is general manager.

Brenham, Texas.—Telephone System.—Brenham-Shelby Telephone Co. has decided to make general improvements to its 18-mile system. Contract has been awarded to E. C. Haas of Shelby.

Bryan, Texas.—Cottonseed-oil Mill.—Bryan Cotton Oil Co. has been organized with P. S. Goggan of Hearne, Texas, president; B. D. Cash of Cameron, Texas, vice-president and manager, and R. C. Allen of Hearne, Texas, secretary-treasurer. It is proposed to rebuild the local oil mill which was burned several years ago.

Byers, Texas.—Bridge Works.—Clay County Bridge Co. has been incorporated with \$2500 capital stock by T. H. Harrison, C. P. Bobo, R. P. Grogan and R. L. Ligon.

Cleo, Texas.—Telephone System.—Chartered: Cleo Telephone Co., with \$5000 capital stock, by C. R. Williams, Philip Herald, Charles E. Walker, E. E. Christie and others.

Dalhart, Texas.—Steam Laundry.—W. B. Slaughter, W. P. Wolff, W. L. Foxworth, S. E. Killen and George B. Walker have incorporated the Dalhart Steam Laundry Co. with \$10,000 capital stock.

Dallas, Texas.—Fuller's-earth Plant.—T. L. Bradford, Ben F. Orr, F. P. Wheeler, F. P. Webster, Nathan Adams and others have incorporated the Texas Fuller's Earth Co. with capital stock of \$100,000. They will develop

the fuller's-earth deposits on a 500-acre tract of land, building for this purpose a large modern mining and manufacturing plant. Mr. Bradford can be addressed.

Dallas, Texas.—Telephone System.—Southwestern Telephone & Telegraph Co. is said to have received plans and specifications for the erection of its proposed new exchange, to cost from \$15,000 to \$20,000; two stories high; large switchboard and other apparatus to be installed. Various general improvements, betterments and extension are planned by the management; J. E. Farnsworth, general manager.

Dallas, Texas.—Engraving Company.—W. P. Mason, R. Falkenstein and John C. Osborne have incorporated the Mason Engraving Co. with \$5000 capital stock.

Dallas, Texas.—Tank Works, etc.—Reports state that the Harry Bros. Company, manufacturers of galvanized eaves, troughs, conductor pipes, well casings, etc., will arrange at once for the erection of additional factory building, expending about \$25,000.

Dallas, Texas.—Paper Mill.—Texas Paper Co. has secured permit for the erection of proposed \$15,000 addition to plant.

Dallas, Texas.—Road Building.—Commissioners Court of Dallas county has let contract to A. L. Simpson for the construction of Carrollton and Richardson crossroad, about six or eight miles long. Bid is 21 cents for placing and 25 cents for hauling gravel per yard mile.

Denison, Texas.—Concrete Bridge.—The Southwestern division of the Frisco system will undertake the construction of a bridge or culvert, probably entirely of concrete, near Denison. J. D. Taylor, resident engineer at Pierce City, Mo., will be in charge, and is making the preliminary plans.

Devine, Texas.—Cotton Gin.—Adams Gin Co. has been incorporated with capital stock of \$8000 by W. B. Adams, C. M. Thompson, L. F. Price and others.

El Paso, Texas.—Brick Works.—Atlas Brick Co. has been incorporated with \$100,000 capital stock by A. Courchesne, S. H. Sutherland, F. B. Stuart and W. W. Turney.

Fort Worth, Texas.—Candy Factory, etc.—Incorporated: Palace of Sweets with \$10,000 capital stock by F. H. Reid, M. B. Lionberger and Lonnie Self.

Goliad, Texas.—Cotton Gin.—R. C. Reimenschneider of Runge, Texas, has purchased site on which to erect cotton gin.

Goree, Texas.—Cotton Gin.—Farmers' Union Co-operative Gin Co. has been incorporated with capital stock of \$8000 by A. W. Coffman, John K. Wisdom, W. J. Lovers and others.

Houston Heights, Texas.—Furniture Factory.—Houston Casket & Manufacturing Co. will arrange to put in operation a furniture factory which has been idle for some time. J. C. McKillip will be manager.

Houston, Texas.—Organ Factory.—England Organ & Piano Co. has been organized with \$50,000 capital stock by Hyman Levy, James A. Baker, Jr., T. W. House, A. S. Vandervoort of Houston and J. R. England of Dallas, Texas, to manufacture an organ invented by Mr. England, metallic horns being used to produce the music in place of the ordinary reed. Arrangements will be made at once for the erection of factory building.

Keltya, Texas.—Lumber Company.—Chartered: Jack Creek Lumber Co., with \$10,000 capital stock, by E. T. Clark, J. H. Kurth and W. E. Porter.

Matagorda, Texas.—Ice Plant.—W. G. Thornhill contemplates installing ice plant of 10 to 15 tons daily capacity.*

Nacogdoches, Texas.—Oil Wells.—Colony Oil Co., capitalized at \$10,000, has been incorporated by June C. Harris, W. B. Masterson and H. Masterson.

Sherman, Texas.—Oil Refinery.—J. C. Tasse is reported as erect building 50x75 feet and equip it with machinery for refining natural oil.

Temple, Texas.—Sewer System.—The city has engaged Robert Smith, constructing engineer of the Temple Sewer Co., to serve as engineer for the construction of the municipal sewer system, for which bonds were voted recently. Address The Mayor.

Texarkana, Texas.—Electric-light and Power Plant.—John B. King, W. P. Harrison and associates will organize company to establish electric-light and power plant, for which franchise was mentioned last week as having been granted.*

Waco, Texas.—Bridge Construction.—St. Louis Southwestern Railway has begun the construction of proposed bridge across the Brazos river; to consist of three 200-foot pin-connected through spans; the 50-foot approach on east side will be a deck-plate girder; the entire structure to be of open-hearth steel, founded upon concrete masonry piers and abutments, the piers entering sev-

eral feet into the bedrock of the river bottom. M. L. Lynch, Tyler, Texas, is chief engineer.

Walnut Springs, Texas.—Machine Shops, etc.—Texas Central Railroad has begun the erection of its proposed machine shops and roundhouse; shops 200 feet each way, being erected in the form of a cross; concrete-block construction. C. Hamilton, Waco, Texas, is general manager.

VIRGINIA.

Abingdon, Va.—Steam Laundry.—Incorporated: Abingdon Steam Laundry, with \$5000 authorized capital stock. J. P. Honaker is president; C. H. Jennings, vice-president, and D. T. Fuller, secretary.

Ashland, Va.—Water-works, etc.—Ashland Gas, Sewer & Water Co., reported incorporated last week, will build plant to include water towers, gashouse, engine-houses, etc., all of brick; buildings and equipment to cost \$75,000; W. E. Sexton, 1920 Market street, Philadelphia, Pa., engineer in charge; J. D. Harris, 608 Greenway avenue, Philadelphia, Pa., architect in charge. J. F. Howison is president and Mr. Harris is general manager.

Blacksburg, Va.—Sawmill, Ice, Electric-light and Gas-producer Plant.—Blacksburg Power & Supply Co., Inc., which recently erected a sawmill 40x60 feet, 35 feet high, to have a capacity of 50,000 feet, will shortly begin building a four-ton ice and refrigerating plant, 700 to 1000-light electric plant, etc. It is proposed to erect one three-story building 29x54 feet, one two-story building 17x25 feet, frame construction. Between \$15,000 and \$20,000 will be invested.*

Clarksburg, Va.—Distillery.—Incorporated: Mecklenburg Distilling Corporation; W. H. Goeck, president; Crowder Richard Jones, vice-president; R. Y. Person, secretary and treasurer; capital stock \$25,000.

Dendron, Va.—Sawmill.—H. A. Booth contemplates erecting a sawmill.

Lynchburg, Va.—Bottling Works.—Incorporated: Coca-Cola Bottling Works; J. W. Lupton, president, Lynchburg; T. J. Murphy, vice-president, Roanoke, Va.; John S. Riley, secretary and treasurer, Roanoke, Va.; capital stock \$10,000.

Norfolk, Va.—Coal Mines.—Black Mountain Collieries Co., recently incorporated with capital stock of \$250,000, has appointed William Ramsay of Ozone, Tenn., manager. He invites literature sent to him at Ozone. After October 1st address at Pennington, Va.

Norfolk, Va.—Concrete Drain.—City is reported as to construct a concrete drain through Elmwood Cemetery, for which an appropriation of \$9317 has been made. Address City Engineer.

Norfolk, Va.—Bakery.—George O. Kolb of Philadelphia, Pa., will erect bakery to have daily capacity of 30,000 loaves of bread. He has awarded contract to Botts-Hayden Company for construction of three-story 60x100-foot building, in which mechanical equipment, ovens, etc., will be installed. Stables 35x35 feet will also be erected.

Norfolk, Va.—Gasoline-engine Works.—The Wallace Brothers have not as yet completed arrangements for establishing their proposed works for the production of marine gasoline engines.

Norfolk, Va.—Land Improvement.—Chartered: Norfolk Boulevard Land Corporation, with John T. Bolton, president; Cyrus E. Worrell, vice-president, and Francis Richardson, secretary-treasurer; authorized capital stock \$100,000.

Norfolk, Va.—Importing and Exporting Company.—Chartered: American Import, Export & Commission Co., to engage in a general importing and exporting business, act as distributors and selling agents for out-of-town manufacturers. Nathaniel Charter Burruss is president; Theodore S. Garnett, Jr., vice-president, and Eugene Lansing Burruss, secretary-treasurer; office, Board of Trade Building.

Pearisburg, Va.—Water-power-Electrical Plant.—Giles County Electric Railway Co., Bernard Mason, director, contemplates building a dam to develop power which will be transmitted by electricity for operating railway and for other purposes; this project referred to last week. Company is seeking to engage civil and electrical engineer to take charge of its construction work.

Richmond, Va.—Tobacco Factory.—E. K. Vietor has purchased site on which to build tobacco factory at a cost of \$25,000. He has contract to furnish tobacco to Austrian government.

Richmond, Va.—Elevators and Safety Machines.—Chartered: Roth Elevator Safety Machine Co., with \$25,000 capital stock, to manufacture the "Roth" elevator safety machine for passenger and freight elevators; also will later engage in the manufacture of elevators. August A. Roth of Baltimore, Md.,

is president; August Diets, vice-president and treasurer, and Fritz Will, secretary, both of Richmond. No arrangements have been made for the erection of building. Mr. Roth can be addressed for the present in care of the Diets Printing Co., 12th and Franklin streets, Richmond.*

Roanoke, Va.—Paving.—City has awarded contract to the Atlantic Bitulithic Co. of Spartanburg, S. C., for the construction of brick pavement on several streets; contract price about \$26,000.

Winchester, Va.—Electric-light and Power Plant.—Winchester & Washington City Railway Co. is arranging to erect electric-light and power plant, furnishing power for operating proposed electric railway. A building 100x50 feet will be erected and equipped for a capacity of 3000 horse-power. About \$250,000 will be invested in plant, pole lines, etc.; N. Wilson Davis, R. F. D. No. 1, Charles Town, W. Va., engineer in charge; S. H. Hansbrough, president; Shirley Carter, secretary-treasurer, and S. L. Hoover, general manager. (Reference was previously made to this improvement.)

WEST VIRGINIA.

Belington, W. Va.—Handle and Spoke Factory, etc.—Mountain State Handle Manufacturing Co. will establish plant for the manufacture of handles, spokes, novelties, etc. A frame building 30x30 feet will be erected. S. H. Findley is engineer in charge.

Charleston, W. Va.—Plumbing and Roofing Supplies.—Griffith Supply Co. has been incorporated with an authorized capital stock of \$25,000. W. L. Ashley is president; E. T. Crawford, treasurer, and George M. Griffith, general manager.

Clarksburg, W. Va.—Street Improvements.—City is receiving estimates on 5000 feet cement-concrete pavement to be laid on Bulberry street. Contract has also been awarded W. B. Vergie & Co. for laying 4500 feet of 12-inch water main.

Fairmont, W. Va.—Stone Company.—First Ward Stone Co. has been incorporated with an authorized capital stock of \$5000 by F. M. Meredith, W. R. Osborne, N. C. Steele of Fairmont, John M. Holland of White Day, W. Va., and J. Frank Tickle of Little Falls, W. Va.

McMechen, W. Va.—Street Paving.—Arrangements have been completed for grading and paving 7th street, embracing about 1500 square yards, and bids for the work will be received until September 15. Harry McElroy is recorder.*

Morgantown, W. Va.—Oil and Gas Wells.—Jane Oil Co. has been incorporated with \$50,000 capital stock to drill for oil and gas; incorporators, Joseph H. McDermott, Harry R. Warfield, Charles W. Phillips, Charles E. Petticoat and Thomas Ray Dille.

Parsons, W. Va.—Publishing.—Mountain State Patriot Co. has been incorporated with \$4500 capital stock by Joseph W. Bedford, James A. Bedford, William Young of Parsons, J. G. Nestor and C. G. Stater of Davis, W. Va.

St. Marys, W. Va.—Garden Implements.—Incorporated: Sparks Hoe Co., with capital stock of \$10,000, for manufacturing garden implements, by R. Bolard, Jr., J. R. McMahon, J. B. McCollom and others.

Webster Springs, W. Va.—Lumber Mills.—Incorporated: Camden Lumber Co., authorized capital \$5000, by William L. Camden of Baltimore, Md.; Aaron Johnson, Webster Springs; J. H. Johnston, Washington, D. C.; Alfred J. Carr, Baltimore, and John T. McGraw, Grafton, W. Va.

Wheeling, W. Va.—Water-works.—It is stated that the city officials are in favor of calling an election to vote on issuing \$400,000 in bonds for the proposed water-works extension previously mentioned. Address The Mayor.

INDIAN TERRITORY.

Ardmore, I. T.—Brick Works.—Reported that C. C. Frampton of Washburn, Wis., will establish brick plant in Ardmore.

Purcell, I. T.—Light and Power Plant.—Hobart Light & Power Co. has been incorporated with \$550,000 capital stock by Dorset Carter of Purcell, Frederick A. Gale of Chicago, Ill., and George S. Selden of Erie, Pa.

OKLAHOMA TERRITORY.

Cashion, O. T.—Gin and Mill.—Incorporated: Farmers' Co-operative Gin & Mill Co., with \$4000 capital stock, by Arthur Bowhay, Henry Chitwood, Harvey Stewart, D. G. Woodworth and K. C. Harman.

Claremont, O. T.—Machine Shop.—N. S. Sherman Machine and Iron Works of Oklahoma City, O. T., will build 50x100-foot brick machine shop, structure and equipment to cost \$7000, in connection with \$17,500 contract recently received for storm-sewer work. Machinery is wanted.*

Enid, O. T.—Townsite Company.—Rock Island Land & Townsite Co. has been incorporated with capital stock of \$100,000 by N. C. Taylor and Z. S. Taylor of St. Louis, Mo., and Albert Loewen of Enid.

El Reno, O. T.—Pottery.—El Reno China Co. will build plant for manufacturing semi-porcelain and toilet ware, etc. Plans are being drawn for kiln pottery of brick, about 480x140 feet, one and two stories high. Construction work will probably not begin before October 1. This company reported incorporated last week with capital stock of \$200,000. Address C. D. Moore, 934 Fourth avenue, Huntington, W. Va.

Gracemont, O. T.—Oil and Gas Wells.—Farmers' Oil & Gas Co. has been incorporated with \$1,000,000 capital stock by John Knudson, G. W. Gardner, Alonzo Brummett, H. D. Emenhiser and C. E. Bair.

Greenfield, O. T.—Cotton Gin.—John Honolovis, A. E. Ennen, J. D. Johnson, W. H. Greenfield, Wilton E. Thompson and others have incorporated the Farmers' Gin Co. with \$5000 capital stock.

Guthrie, O. T.—Cotton Gin.—Farmers' Union is arranging to build a cotton gin.

Mountain View, O. T.—Printer.—Mountain View Printing Co. has been incorporated with \$2500 capital stock by H. C. Huber, L. E. Huber, Helen Falkenburg and O. J. Logan.

Oklahoma City, O. T.—Natorium.—J. W. Webb, F. L. Conger, J. J. Rackley, J. W. Corderman, William Rand and Eva Webb have incorporated the Webb Natatorium Co. with \$20,000 capital stock.

Ringwood, O. T.—Flour and Meal Mill.—Ringwood Mill & Elevator Co., reported incorporated last week, will operate a 150-barrel flour mill and 100-bushel meal mill. It is proposed to erect three buildings, 74x32 feet, 12x14 feet and 14x20 feet, respectively, three and four stories high. D. F. Alger is president and treasurer, and E. A. Wales, manager.

Shawnee, O. T.—Oil and Gas Wells.—Incorporated: Chickasaw Oil & Gas Co., with \$200,000 capital stock, by H. E. Beard, W. J. Riggs, E. E. Whitaker, Richard Hamblin and E. C. Stanard.

BURNED.

Barboursville, Ky.—Union College buildings; loss \$10,000.

Columbus, Ga.—Johnson & Bros.' warehouse; loss \$15,000.

Cumberland, Md.—Flywheel in electric-light plant of city burst, causing damage of \$6000. Address Water and Light Committee.

Dimmitt, Texas.—Castro county courthouse; loss \$13,000. Address County Judge.

Dyersburg, Tenn.—H. A. Klyce's mill and elevator; loss \$125,000.

Mineola, Texas.—D. S. Shields' cotton gin.

McNab, Ark.—Whitefield Saw Co.'s mill; loss reported at \$2000.

Newbern, N. C.—N. H. Street's business building; loss \$15,000.

Ruston, La.—Ruston Ice & Fuel Co.'s plant; loss about \$40,000.

Trinity, Texas.—Cotton gin, property of John Standley of Groveton, Texas; loss \$5000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Annapolis, Md.—Gymnasium.—Noel Construction Co. of Baltimore, Md., is lowest bidder for proposed remodeling of boat-house into gymnasium. Bid is \$133,300.

Anniston, Ala.—Business Block.—L. H. Kaplan has let contract to C. J. Houser for erection of two-story addition to Kaplan Block.

Ardmore, I. T.—Warehouse.—Indian Territory Farmers' Union, J. S. Murray, secretary, Emet, I. T., will build warehouse to cost probably \$8000.

Ashland, Ky.—Church.—L. C. Lowe, Huntington, W. Va., is preparing plans for a one-story brick church, 48x80 feet, to be erected by Centenary M. E. congregation at a cost of \$6000.

Atlanta, Ga.—School.—E. C. Wachendorf, Empire Building, has prepared plans for stone schoolhouse for Dr. E. W. Grove, Angler Springs, Atlanta; cost about \$4000; day labor; tile roof; Oscar Mills, builder.

Atlanta, Ga.—Warehouse.—E. C. & A. L. Kontz will build warehouse; concrete and cement floors, plumbing, etc.; to cost about \$5000; architect, E. C. Wachendorf, Empire Building.

Atlanta, Ga.—Store.—Morris Brandon will erect three-story and basement brick store

building; pressed-brick front; plate glass; sidewalk lights; plumbing; bathrooms; gas and electric wiring; steam heat, etc.; to cost about \$25,000; architect, E. C. Wachendorf, Empire Building.

Atlanta, Ga.—Clubhouse.—Horman & Falkner have completed plans for alterations and additions to clubhouse of the Piedmont Driving Club, previously referred to.

Baltimore, Md.—Hospital.—The building committee, Isaac Strouse, chairman, northeast corner Lombard and Paca streets, of the Hebrew Hospital and Asylum, Monument street and Hopkins avenue, has commissioned Louis Levi, architect, American Building, Baltimore and South streets, to prepare plans and specifications for an additional hospital building to cost about \$75,000.

Baltimore, Md.—Sanitarium.—Dr. F. G. Moyer, 1500 Eutaw place, will erect four-story brick sanitarium at 1500 Eutaw place. Lorenz Schoenlein, 2217 East Baltimore street; C. C. Waits, 113 Hamilton street; Milton C. Davis, 5 Hopkins place; Jacob Peters, 321 St. Paul street; J. J. O'Connor, 1611 E. Preston street; M. Luther Wright, Eutaw and McCulloh streets, and Frederick Decker & Sons, 1299 East Biddle street, are estimating on construction; J. Edward Laferty, architect, 11 East Pleasant street.

Baltimore, Md.—Warehouse.—Thomas W. Pumphrey, 123 Center Market space, has commissioned F. Bruns Klefman, architect, 2140 Druid Hill avenue, to prepare plans and specifications for warehouse to be erected on Lombard street near Center Market space; three stories, 30x75 feet; brick with galvanized-iron trimmings; electric wiring and fixtures; sanitary plumbing; elevator.

Baltimore, Md.—Service Building.—The United Railways & Electric Co., Continental Building, Baltimore and Calvert streets, is now taking bids on the construction of two-story brick service building 28x72 feet at its Light-street car barn; Simouson & Pletsch, architects, American Building, Baltimore and South streets. C. L. Stockhausen, National Marine Bank Building, Gay and Water streets; J. H. Miller, 110 Dover street; John Hiltz & Son, 3 Clay street; E. D. Preston, Gunther Building, St. Paul and Fayette streets; John Cowan, 106 West Madison street, and John Waters, 23 East Centre street, are estimating; bids to be in September 8.

Baltimore, Md.—School.—St. Joseph's House of Industry, Lexington and Carey streets, has awarded contract to James J. O'Connor, 5 Lloyd street, for the construction of school at northwest corner Charles and 28th streets; three stories and basement, 150x150 feet; brick with stone and terra-cotta trimmings; structural iron and steel; sheet-metal work; slate roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$175,000; Torney & Leach, architects, 33 North Charles street.

Baltimore, Md.—Church.—Referring to church to be erected at Overlea for Evangelical Lutheran Church, the following contractors are estimating: Henry Momberger, 31 West Chase street; Henry Pierson, 1099 Hanover street; H. S. Ripple, 7 Clay street, and H. W. Johnson, 27 West Oliver street; one story; brick and stone; structural iron and steel; slate roof; heating system; J. J. Zink, architect, 639 Patterson Park avenue.

Baltimore, Md.—Warehouses.—Referring to four warehouses to be erected on Charles street between Camden and Conway streets, the following contractors are estimating: Frederick Wright Company, National Marine Bank Building, Gay and Water streets; J. H. Miller, 110 Dover street, and B. F. Bennett, 123 South Howard street; two stories, 15x100 feet each; brick with limestone trimmings; structural iron and steel; galvanized-iron cornices; metal frames and sashes; slag roof; elevators; alternate bids on reinforced concrete columns and girders; bids to be in September 5; Mottu & White, architects, 326 North Charles street.

Baltimore, Md.—Club Building.—The Baltimore Country Club, Roland Park, has awarded contract to John Cowan, 106 West Madison street, for the construction of an additional building on its grounds at Roland Park, to be used for bowling and billiard-rooms; two stories and basement; frame construction on stone foundation; Wyatt & Nolting, architects, Keyser Building, Calvert and German streets. Same architects are also preparing plans for an addition to the main club building, contract for which has not as yet been awarded.

Baltimore, Md.—Freight Shed.—The Northern Central Railroad Co. has awarded contract to Armstrong & Latta, 36 East Lee street, for the construction of two-story freight shed, 31.6x56.6 feet, at the Bolton freight yards, to cost about \$3200.

Baltimore, Md.—Warehouses.—Benjamin

Krulewitch, 227 South High street, has awarded contract to Charles W. Simpson & Co., 415 East Lexington street, for the construction of two three-story brick warehouses in rear of southeast corner Lombard and Frederick streets. Gas fixtures and elevators will be installed; Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Dwellings.—Richard H. Burdette will erect 40 two-story brick dwellings on Patterson place, to cost about \$40,000; George Clothier, Jr., architect, Lobe Building, 15 South Gay street.

Baltimore, Md.—Dwellings.—Edward S. Hampson, 205 St. Paul street, has purchased lots at northwest corner Wilkens avenue and Catharine streets and will erect about 21 two-story brick dwellings on the site.

Baltimore, Md.—Warehouse.—It is reported that Isaac Benesch & Sons, 549-557 North Gay street, will erect storage warehouse at 1167-1171 Little McElderry street; Charles E. Cassell & Son, architects, Law Building, 225 Courtland street.

Batesville, Ark.—Cotton Warehouse.—R. P. Weaver will build cotton warehouse 50x150 feet; corrugated iron; capacity 2500 bales.

Beaumont, Texas.—School.—City will vote September 27 on bonds for \$30,000 to erect school building. E. A. Fletcher is mayor.

Birmingham, Ala.—Skating Rink.—R. D. Burnett, A. A. Gambill and Ed Rickman have organized company with \$10,000 capital stock for the erection of skating rink 140x100 feet, of brick.

Boydton, Va.—School Building.—Boydton District School Board is considering the erection of brick building.

Bristol, Tenn.—Office Building.—J. M. Barker and James B. Lyon will erect office building five stories high, 68x75 feet; ordinary construction; steam heat; gas and electric fixtures; electric or water-power elevators; architect, S. W. Shepherd; contractors, Smith & Wilson; cost \$30,000. Heating, lighting and elevator contract will be let within 20 days.

Calot, Ark.—Cotton Warehouse.—Lonoke County Farmers' Union will build cotton warehouse 80x120 feet in size.

Chattanooga, Tenn.—Skating Rink.—Chattanooga Street Railways Co. is reported as to erect skating rink 230x285 feet, to be lighted by several hundred electric lamps.*

Clarksville, Tenn.—School Building.—Board of Education will open bids September 26 for furnishing all materials and labor necessary to erect and finish complete proposed high-school building, with exception of heating, ventilating and plumbing, for which separate bids will be required. Form of proposal and full particulars can be had from board or from J. W. Gaddis, architect, Vincennes, Ind. Usual rights reserved; Prof. Perry L. Harned, corresponding secretary.

Corpus Christi, Texas.—Store and Office Building.—Bailey Mills Co., Victoria, Texas, has contract to erect \$12,000 store and office building for the Misses Benntizer.

Crowley, La.—Depot.—C. H. Page, Jr., Austin, Texas, has completed plans for depot to be erected by Colorado Southern Railroad.

Dadeville, Ala.—Dwelling.—James R. Hall has contract to erect residence for J. B. Ry-lance, mentioned July 26; to be of frame construction and cost \$10,000.

Dallas, Texas.—Building.—Mrs. Barney Gibbs has secured permit for the erection of proposed two-story brick building to cost \$11,000.

Dallas, Texas.—Residence.—L. L. Thorne has received permit for erection of his proposed \$25,000 residence; two stories; brick and stone; architects, Lang & Mitchell.

Dallas, Texas.—Dwelling.—Steward Moore and George Willis have prepared plans for residence to be erected by Charles Padgett.

Danville, Va.—Tobacco Warehouse.—Old Belt Tobacco Storage Co., reported incorporated August 30, will erect a bonded storage warehouse; three stories, 230x90 feet; mill construction; equipped with automatic sprinklers, electric elevators, etc.; cost \$25,000; Deitrick & Pearson, architects. All equipment has been contracted for.

Danville, Va.—Apartment-house.—W. P. Hodnet is preparing to erect a 30-room cement-block apartment-house to cost \$15,000.

Dardanelle, Ark.—Cotton Warehouse.—Farmers' Educational and Co-operative Union is reported as considering the erection of cotton warehouse.

Denison, Texas.—Union Depot.—Arrangements are reported as being completed for the erection of the union passenger station reported last week to be built by the Missouri, Kansas & Texas for its own use and other railways entering Denison. About \$150,000 will be expended. F. W. Bailey is superintendent of bridges and buildings.

Edwards, Miss.—Bank and Office Building. Bank of Edwards, A. C. Jones, president, is arranging for the erection of two-story bank and office building with stone front.

Ellaville, Ga.—Bank Building.—Bank of Southwestern Georgia, Americus, Ga., is reported to erect bank building.

Etowah, Tenn.—Bank Building.—Bina Young & Son, Sweetwater, Tenn., have contract to erect building for the Bank of Etowah, recently organized.

Fort Myers, Fla.—Business Block.—J. C. Blackburn & Co. is the correct title of firm having contract to erect business block for H. E. Heitman, mentioned last week; two stories, 67x87 feet; press brick with plate-glass front; mill construction; electric fixtures; cost \$15,000; W. B. Talley, Jacksonville, Fla., architect.*

Fort Thomas, Ky.—Flat Building.—J. R. Stevens & Co., Farmers and Traders' Bank Building, Covington, Ky., have contract for a two-story press brick flat building, 50x75 feet, after plans by C. C. Weber, 4th and Walnut streets, Cincinnati, Ohio.

Fort Worth, Texas.—Dwelling.—Hal Noble has had plans prepared by Smith & Schenk for proposed residence.

Franklin, N. C.—Bank Building.—Macon County Bank, John U. Mann, secretary, will erect bank building three stories high; brick or concrete blocks. Proposals for plans and specifications and for erection are invited; bank and stores on first floor; offices above.

Frederick, Md.—Association Building.—Plans by Hamme & Leber, York, Pa., have been adopted for Young Men's Christian Association building referred to August 16; to be three stories, of brick with stone or terra-cotta trimmings.

Galveston, Texas.—Hotel.—It is reported that about \$20,000 will be expended in improvements to the Tremont Hotel.

Gastonia, N. C.—Bank Building.—Hook & Rogers, Charlotte, N. C., are preparing plans for bank building to be erected by the Love Trust Co.

Gonzales, Texas.—Cotton Warehouse.—Gonzales County Farmers' Union Warehouse Co. has let contract to Albert Richter for erection of warehouse, 50x100 feet.

Hagerstown, Md.—Orphanage.—Washington County Orphans' Home will erect additional structure, details of which have not been announced.

Hattiesburg, Miss.—Church.—Barber & Klutz, Knoxville, Tenn., are preparing plans for proposed edifice for the M. E. congregation. S. F. Tatum is chairman building committee.

Havre de Grace, Md.—Residence.—Isaac Hecht has had plans prepared by W. L. Plack of Philadelphia, Pa., for erection of residence.

Henderson, Ky.—Courthouse.—The city will hold an election in November to vote on issuing \$125,000 bonds for erection of courthouse. Address The Mayor.

Hendersonville, N. C.—Dwelling.—Hook & Rogers, Charlotte, N. C., are preparing plans for residence to be erected by T. B. Gibson.

Hillsboro, Texas.—School Building.—City has voted affirmatively the \$20,000 bond issue reported August 16 for the erection of high-school building. Address The Mayor.

Jacksonville, Fla.—Office Building.—Courtland Buckman will erect five-story brick office building, 40x100 feet.

Kansas City, Mo.—Warehouse.—Hugh E. Thompson has permit for erection of warehouse, 48x115 feet; four stories; cost \$15,000.

Lake Charles, La.—Institute Buildings.—Southwestern Industrial Institute has received plans and specifications for the erection of brick dormitory to contain 20 rooms; probably other structures will also be provided for in the near future.

Lexington, Ky.—Building.—Anderson & Faig are preparing plans for a building 150x100 feet to be erected at a cost of \$75,000; ordinary construction; electric elevators; hot-blast-heating plant.

Lexington, Ky.—School.—Trustees of State College have decided to build school structure to cost \$25,000; three stories; brick construction; pressed brick and stone. Plans will be completed during the week.

Lexington, Ky.—Hospital.—Good Samaritan Hospital has let contract to local firms for foundation, brick, concrete and other work involved in the construction of \$12,000 building. Louis de Cognets & Co. have the contract for concrete.

Lexington, Ky.—Tobacco Warehouse.—Reported that Shelburne Tobacco Co. of Richmond, Va., has awarded contract to Combs Lumber Co., Lexington, for erection of warehouse; frame and iron; 216x100 feet; one story and basement.

Liberty, Mo.—Lodge Building.—D. E. Marshall & Co., Kansas City, Mo., has contract at \$33,846 for Odd Fellows' building to be erected at the Odd Fellows' Home, Read Springs, near Liberty. E. J. Eckel prepared the plans.

Little Rock, Ark.—Union Depot.—Contract has been awarded to the Westinghouse-Church-Kerr Company of New York for construction of the foundations for the proposed \$300,000 union depot for Little Rock. Theo. C. Link of St. Louis, Mo., prepared the plans and specifications for the building. Contract for the superstructure will not be awarded for some weeks.

Little Rock, Ark.—Dwelling.—J. F. Loughborough is having plans prepared for a \$5000 residence.

Louisville, Ky.—Store Building.—Eastern capitalists, represented by Albert Selligman, are reported as proposing to erect large building for department store.

Lynchburg, Va.—Bank Building.—First National Bank will erect office building.

Madisonville, Ky.—Bank Building.—Otho Fowler of Kuttawa, Ky., has charge of erection of bank building and is in the market for entire equipment; three stories; hot-water heating plant; electric-lighting fixtures.

Madisonville, La.—Bank Building.—Madisonville Bank, Theo. Dendinger, president, will erect bank building. (Erroneously reported last week at Madisonville, Ky.)

Memphis, Tenn.—Hotel.—James T. Walsh is having plans prepared for a 50-room hotel.

Memphis, Tenn.—Apartment-house.—Dr. T. J. Crofford has awarded contract to J. W. Williamson to remodel sanitarium into an apartment-house; cost of construction about \$18,000.

Midlothian, Texas.—School.—City has voted issuance of \$15,500 bonds for erecting school building. Address The Mayor.

Midway, Ky.—Dwelling.—James W. Parrish has had plans prepared by Martin Goertz, City National Bank Building, Lexington, Ky., for a two-story press-brick residence to cost \$30,000.

Muskogee, I. T.—Theater.—Fred Scherubel, manager Lyric Theater, is having plans prepared for a theater 50x100 feet.

Nashville, Tenn.—Lodge Building.—Nashville Odd Fellows' Hall Association is considering plans for remodeling and erection of additional story to Odd Fellows' Temple at Church street and Sixth avenue, expending about \$15,000. Wm. F. Davis is secretary.

Newberry, S. C.—Warehouse.—Standard Warehouse Co. of Columbia, S. C., will double present capacity of cotton warehouse. Capacity is 4000 bales.

New Orleans, La.—Skating Rink.—St. Charles Skating Rink Co. has been incorporated with \$10,000 capital stock. Jacob Israel is president; Gus Lehman, Jr., vice-president, and Eldon S. Lazarus, secretary-treasurer.

New Orleans, La.—Warehouse.—Chartered: Centennial Storage & Warehouse Co. with \$5000 capital stock to operate public warehouses. Chas. W. Sheppard is president; Leo Fellman, vice-president, and R. G. Sullivan, secretary-treasurer.

New Iberia, La.—School Buildings.—Eugene Guillot and C. E. Reynolds have contract at \$22,000 for the construction of two proposed school buildings.

New Orleans, La.—City Hall Annex.—An ordinance will be introduced at the next meeting of the city council authorizing the expenditure of \$200,000 for the erection of an annex to the City Hall. Address The Mayor.

New Orleans, La.—Courthouse.—Bids will shortly be asked for courthouse to be erected jointly by the city and State, for which plans by P. Thornton Marrye, F. W. and A. T. Brown, associate architects, Atlanta, Ga., were reported July 26 as adopted by the commission. The plans provide for a modern fireproof building, four stories, of white glazed terra-cotta. About \$1,000,000 will be expended for site, building, etc.

New Orleans, La.—Hotel.—Toledano & Wogan are preparing plans for proposed hotel for the La Baronne Hotel Realty Co., 708 Union street; nine stories, 57x200 feet; steel, concrete and brick; capacity 1200 people; cost \$650,000. Lawrence Fabacher is president; Pierre Crabites, vice-president, and Chas. I. Denechaud, secretary-treasurer.

New Orleans, La.—College Building.—The erection of a \$150,000 building for Loyola College is being considered by the Marquette Association, B. A. Oxnard, president. Father Albert Biever, S. J., is president of the college.

Opelousas, La.—Depot.—Colorado Southern Railroad has had plans prepared by C. H. Page, Jr., Austin, Texas, for proposed depot.

Pearsall, Texas.—Warehouse.—Incorporated:

Pearsall Warehouse Co., by C. H. Beever, W. F. Thompson and A. V. Harris.

Pine Beach, Va.—Hotel.—Powhatan Hotel Co., reported incorporated last week, etc., will build hotel 87x146 feet; mill construction; latrobes and fireplaces for heating; electrical lighting fixtures; electric elevators; cost \$30,000; C. W. Tebault, Norfolk, president.

Portsmouth, Va.—Store and Office Building.—Tidewater Building Association will shortly let contract for the erection of brick store and office building to cost \$10,000.

Prague, O. T.—Cotton Warehouse.—Farmers' Union is arranging for the erection of a cotton warehouse of 2000 bales capacity.

Raleigh, N. C.—School Building.—Bids will be opened September 15 at the mayor's office for the erection of a high-school building. Plans and specifications can be seen at the office of C. E. Hartge, architect, West Martin street. Usual rights reserved. G. Rosenthal is secretary of school committee.

Richmond, Va.—Memorial Hall.—Carpenter, Blair & Gould have completed plans for proposed Confederate Memorial Hall and Auditorium; to be of a monumental character of brick or concrete, and the auditorium to have a seating capacity of 2500.

Roanoke, Va.—Store Building.—Fenton-Bowers Furniture Co. will arrange at once for the erection of a one-story wood and iron building.

Savannah, Ga.—Warehouse.—F. A. von Eberstein & Son have contract to erect proposed warehouse for the Seaboard Air Line Railway on Hutchison's Island; to be 210x260 feet; have overhead runways and a firewall; cost \$50,000.

Scottsboro, Ala.—Warehouse.—Farmers' Warehouse & Storage Co. will build warehouse 22x6 and 24x30 and 20x30 and 60x120 feet; mill and other construction; engine for heating plant; contractor, Oscar Ridley; architect, Oscar Ridley.

Sewell's Point, Va.—Bazar Buildings.—Jamestown Exposition Co., New Century Building, Norfolk, Va., will open bids September 7 for erection of two bazar buildings after plans and specifications on file with Associated Architects and Engineers of the company.

Sewell's Point, Va.—Exposition Building.—The H. Wales Lines Co. of Meriden, Conn., has received contract at \$18,300 to erect the Connecticut State Building at the Jamestown Exposition. Rossiter & Wright, 110 East 23d street, New York, N. Y., prepared the plans.

Sewell's Point, Va.—Exposition Building.—W. M. Mitchell, president of the Georgia State Commission, and Thornton Marrye, architect, both of Atlanta, Ga., have selected site 150x2000 feet on the exposition grounds for the location of the Georgia Building referred to August 23. An appropriation of \$30,000 was previously reported for this purpose.

St. Albans, W. Va.—Church.—Baptist congregation is having plans prepared by Rabenstein & Warne, Charleston, W. Va., for proposed \$15,000 brick edifice.

St. Louis, Mo.—Sanitarium.—Masonic Sanitarium Association, William Sessinghaus, president, has received plans for erection of proposed sanitarium, 64x104 feet; five stories; fireproof construction; doors and windows to be covered with sheet copper; cost \$100,000.

St. Petersburg, Fla.—Office Building.—W. E. Allison has contract to erect two-story brown pressed-brick building, 50x70 feet, for E. H. Tomlinson, to be used as postoffice.

Starkville, Miss.—Cotton Warehouse.—Ok-tibbeha Warehouse Co. has been incorporated with a capital stock of \$10,000; incorporators, R. P. Washington, J. L. Crigler, J. A. Glen, G. O. Daniel, H. H. Sikes and others.

Thomasville, N. C.—Store Building.—John W. Lambeth is having plans prepared by Hook & Rogers, Charlotte, N. C., for a store building.

Tupelo, Miss.—Union Station.—Mobile & Ohio and the Frisco railways will build a union station; brick construction; steam-heating plant; electric-lighting fixtures; cost \$20,000; architect, C. M. Roquette, St. Louis, Mo. Building will be erected by companies' forces. Mentioned last week.

Walnut Ridge, Ark.—School Building.—Bids will be received until September 17 by J. F. Medearl, secretary Walnut Ridge Special School District, for the erection of a two-story school building in accordance with plans and specifications on file with the secretary. Usual rights reserved.

Warrenton, N. C.—Courthouse.—Warren County Commissioners will open bids September 25 for erection of courthouse after plans and specifications by Frank P. Milburn & Co. of Washington, D. C.; plans on view at architects' office and office of regis-

ter of deeds, Warrenton, N. C.; successful contractor to furnish bond in 50 per cent. of amount of contract; usual rights reserved; P. M. Stallings, chairman county commissioners.

Washington, D. C.—Administration Building.—The Carnegie Institution, Robert S. Woodward, president, Bond Building, New York avenue and 14th street N. W., has purchased lot at 16th and P streets N. W. and will erect administration building on the site to cost about \$200,000.

Washington, D. C.—Office Building.—Referring to office building to be erected at 735 and 727 15th street N. W. by W. B. Hibbs & Co., 1419 F street N. W., the following contractors are estimating on construction: George A. Fuller Company, Munsey Building; Richardson & Burgess, Colorado Building, 14th and G streets N. W., and Norcross Bros. Company, Colorado Building, all of Washington, D. C.; Wells Bros. Company, Union Trust Building, Charles and Fayette streets, Baltimore, Md., and Thompson-Starrett Company, Commercial National Bank Building, 14th and G streets N. W., Washington, D. C.; 10 stories, 38x100 feet; brick with granite base and marble and limestone exterior; steel-frame construction with terra-cotta fireproofing and long-span concrete floor arches; interior marble; ornamental ironwork; copper skylights; slate roof; electric wiring and fixtures; sanitary plumbing; heating system; elevators; Bruce Price & de Silbaur, architects, 1135 Broadway, New York.

Washington, D. C.—Dwelling.—Representative George F. Huff of Pennsylvania, 1335 16th street N. W., has commissioned Horace Trumbauer, architect, Land Title Building, Philadelphia, Pa., to prepare plans and specifications for dwelling to be erected at New Hampshire avenue and Q street N. W.; four stories, 56x67 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$100,000. Bids on construction will soon be taken.

Washington, D. C.—Dwelling.—James C. Dent, 154 Q street S. W., has awarded contract to Joseph Manning, 928 E street S. E., for the construction of dwelling at 2d and Q streets S. W.; three stories, 20x50 feet; brick with stone trimmings; tin roof; sanitary plumbing; hot-air-heating system; cost about \$5000; Wm. J. Palmer, architect, Warder Building, 523 9th street N. W.

Washington, D. C.—Dwelling.—Frank Gillan, 3150 Highland avenue N. W., has awarded contract to Hazell Bros., 627 H street N. W., for the construction of dwelling at Cleveland Park; 2½ stories, 35x50 feet; brick with pebble-dash exterior; red slate roof; hardwood finish; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; A. M. Schneider, architect, Bond Building, 14th and New York avenue N. W.

Washington, D. C.—Dwellings.—H. T. Wilder, 318 Bond Building, 14th street and New York avenue N. W., has commissioned A. M. Schneider, architect, Bond Building, to prepare plans and specifications for 12 dwellings; two stories and basement; brick with limestone trimmings; tin and slate roof; hardwood finish; electric wiring and fixtures; sanitary plumbing; hot-air-heating system; cost about \$50,000.

Washington, D. C.—Garage.—Wm. S. Spencer, 930 F street N. W., was the lowest bidder for the construction of garage on U street N. W. after plans by I. D. Porter, architect, 1421 F street N. W.; two stories, 60x150 feet; stucco exterior; reinforced concrete construction; tile and slag roof; electric wiring and fixtures; sanitary plumbing; elevator; cost about \$20,000.

Washington, D. C.—Dwelling.—George Maca Green has commissioned A. M. Schneider, architect, Bond Building, to prepare plans and specifications for dwelling to be erected at Braddock Heights; two stories and basement; frame construction on brick foundation; slate roof; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; cost about \$6000.

Washington, D. C.—Dwellings.—Pumphrey & Palmer, builders, 414 7th street S. W., will erect nine two-story brick dwellings at 1208-1224 E street S. E., to cost about \$31,000; Edward O. Volland, architect, 418 L street N. W.

Washington, D. C.—Dwellings.—F. D. McAuliffe, builder, 500 D street S. E., will erect six two-story brick dwellings at 1329-1339 1st street N. W., to cost about \$9000.

Washington, D. C.—Store Building.—B. J. Martin, 1259 3d street S. W., has awarded contract to Samuel J. Brinkley, 1332 South Capitol street, for the construction of store building at Delaware avenue and N street N. W.; two stories and basement, 30x65 feet; brick with stone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; cost about \$8000.

Washington, D. C.—Apartment-house.—Ju-

Ilus Egloff, 16 Tennessee avenue N. E., has commissioned Wm. S. Plager, architect, 3 B street N. W., to prepare plans and specifications for apartment-house to be erected at 9th and A streets N. E.; three stories and basement; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Washington, D. C.—School.—St. Mary's Roman Catholic Church, Francis A. B. Wunnenberge, pastor, 727 5th street N. W., has awarded contract to Charles J. Cassidy, 2004 M street N. W., for the construction of school building at 5th and Washington streets N. W.; one story and basement, 40x100 feet; brick with stone trimmings; structural iron and steel; slate roof; sanitary plumbing; heating system; cost about \$25,000; Julius Wenig, architect, 655 New York avenue N. W.

Washington, D. C.—Apartment-house.—Referring to apartment-house to be erected at southwest corner 1st and B streets N. W. by A. O. Bliss, Bliss Building, 35 B street N. W., the following contractors are estimating on construction: John H. Nolan, 1413 G street N. W.; George A. Fuller Company, Munsey Building, 1331 Pennsylvania avenue N. W.; C. A. Langley, 310 12th street N. W.; W. E. Speir Company, 1342 New York avenue N. W.; Richardson & Burgess, Colorado Building, 14th and G streets N. W., and John McGregor, 729 12th street N. W.; five stories, 47x123.6 feet; brick with Indiana limestone trimmings; structural iron and steel; slag roof; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; alternate bid on fireproofing; cost about \$100,000; bids to be in September 12; A. Goener, architect, Bliss Building, 35 B street N. W.

Washington, D. C.—Church.—Wm. S. Plager, architect, 3 B street N. W., has received bids for the construction of building for Calvary Methodist Episcopal Church on Q street between 30th and 31st streets N. W. from the following contractors: Burgess & Parsons, 627 F street N. W.; Edward Landvoigt, 2100 1st street N. W.; A. J. Simpson; B. B. Knell, 221 John Marshall place; R. L. Parry, 1005 13th street N. W.; Spitzer & Co., Home Life Building, 15th and G streets N. W., and W. A. Kimmel, 1516 Columbia road N. W.; one story, 42x100 feet; brick with stone trimmings; structural iron and steel; slate roof; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Washington, D. C.—Dwelling.—F. A. Keep will erect dwelling on R street near Sheridan Circle; three stories and basement, 42x100 feet; brick with stone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; Wyeth & Cresson, architects, 1517 H street N. W. Bids on construction have been obtained from John McGregor, 729 12th street N. W.; John H. Nolan, 1413 G street N. W.; Wm. P. Lipscomb & Co., 1405 F street N. W., and Richardson & Burgess, Colorado Building, 14th and G streets N. W.

Washington, D. C.—Hotel.—Referring to hotel to be erected at Minnesota avenue and G street, Brightwood, by J. B. Homes, the following contractors are estimating on construction: Edward Landvoigt, 2100 1st street N. W.; Burgess & Parsons, 627 F street N. W., and Spitzer & Co., Home Life Building, 15th and G streets N. W.; three stories and basement, 40x65 feet; brick with stone trimmings; metal tile shingle roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$35,000; bids to be in September 13; Wm. S. Plager, architect, 3 B street N. W.

Wilmington, N. C.—Store Building.—Contract will be let about September 23 for proposed store building for Morris Bear & Bro., for which Charles McMillen, 312-314 Southern Building, is preparing plans.

Wilmington, N. C.—Building.—Bids will be received until September 23 for the erection of a five-story building of terra-cotta and press brick for J. H. Brunjes; metal ceilings; electric freight elevator. Certified check for 10 per cent. of contract price must accompany each bid. For information apply to Charles McMillen, architect, 312-314 Southern Building.

Winston-Salem, N. C.—Residence.—Hook & Rogers, Charlotte, N. C., are preparing plans for a residence to be erected by George W. Coan.

Winston-Salem, N. C.—Store Building.—P. H. Hanes, Jr., is having plans prepared by Hook & Rogers, Charlotte, N. C., for a three-story store building.

Yazoo City, Miss.—Theater.—Architect has not been engaged to prepare plans for \$30,000 theater reported last week to be erected by W. T. Priestley.

Yonkum, Texas.—Hotel.—O. Olsen has let contract for the erection of proposed two-story hotel to contain 22 rooms.

RAILROAD CONSTRUCTION.

Railways.

Abbeville, Ga.—A plan is being promoted, it is reported, by local parties to build a railroad from Abbeville to Fort Valley, about 45 miles. Among those interested are Hal Lawson, J. L. Bankston, J. D. Maynard, F. C. and G. O. Shackelford.

Alcolu, S. C.—The Paroda Railroad Co., which proposes building from the Alderman sawmills at Alcolu to Lane's, on the Georgetown & Western and Coast Line railroads, 30 miles, has been granted a commission. R. J. D. W. and Paul R. Alderman are the incorporators.

Anniston, Ala.—It is reported that a construction gang is at work improving the roadbed and track of the Southern Railway between Anniston and Atlanta. W. H. Wells is engineer of construction Southern Railway, Washington, D. C.

Anniston, Ala.—Application has been made to incorporate the Anniston & Columbus Railway Co. to build a railroad from Anniston, Ala., to Columbus, Ga., via Roanoke, Ala., about 100 miles. The following directors have been elected: W. H. Weatherly, president; O. H. Parker, secretary and treasurer; James C. Spruill, Thomas E. Kilby, Eugene L. Turner, M. B. Wellborn, James Keith, W. P. Acker and Whitfield Clark.

Apopka, Fla.—Press reports state that the Florida Midland Railroad (Atlantic Coast Line), extending from Apopka to Kissimmee, is to be converted from narrow to standard gauge. E. B. Pleasants is chief engineer at Wilmington, N. C.

Atlanta, Ga.—The Atlanta, Birmingham & Atlantic Railroad will, it is reported, build extensions to Nashville, Tenn., and Pensacola, Fla. It is also reported that the line will be extended from Birmingham, Ala., to New Orleans, La. H. M. Atchison is president.

Atlanta, Ga.—The Gate City Terminal Co. is reported to have begun condemnation proceedings in the section near the junction of Mangum and Magnolia streets and along Haynes and other streets.

Austin, Texas.—The franchise granted some months ago to William Gallatin Carroll & Co. of New York to build an interurban railroad between Austin and Lockhart has been formally accepted. Work is to begin within six months. S. M. Posey represents the Carroll syndicate.

Azen, Va.—The White Top Railway Co. is reported chartered to build a railway through Smyth, Grayson and Washington counties, Virginia, 11 miles. The incorporators are M. L. Hassinger, president; J. H. Hassinger, vice-president, Lamona, Va.; L. C. Hassinger, treasurer, Aben, Va.; R. M. Page, secretary, Abington, Va.; J. I. Hurt and G. E. Barnes of Lamona, Va.

Baltimore, Md.—Surveys are reported being made by the Baltimore & Ohio Railroad for a new line from Port Perry, Pa., to a point near Baltimore. D. D. Carothers is chief engineer.

Beckley, W. Va.—The Globe & Guyandotte Railway Co. has been chartered with \$150,000 capital by A. D. Preston, M. C. Brackman and Geo. W. Harris of Beckley, W. Va.; G. S. Beckwith and L. F. McGrath of Cleveland, Ohio.

Bessemer, Ala.—Messrs. C. D. Smith & Co., general contractors, write from Birmingham, Ala., to the Manufacturers' Record that they have closed contract with the Atlanta, Birmingham & Atlantic Railroad Co. for that portion of the line from Talladega, Ala., to Pelham, Ala.; also that their firm and the Dalhoff Construction Co. have contract for the work from Pelham to Bessemer, Ala.

Birmingham, Ala.—Mr. J. M. Dewberry, promoter of the Tidewater Development Co., is authority for the statement that all the money necessary to finance the Tuscaloosa, Birmingham & Gadsden Electric Railway has been secured and that construction work will begin without delay.

Bowling Green, Ky.—A committee has been appointed by the Scottsville Commercial Club to assist in securing right of way and arrange for the preliminary survey for the proposed electric railway from Bowling Green to Scottsville, 25 miles. G. A. Bailey of Scottsville, who, it is reported, represents Northern capitalists, is one of the promoters. Others said to be interested are W. L. Yarbrough and T. C. Mitchell.

Brownsville, Texas.—The Louisville & Nashville Railroad will, it is reported, build a spur five miles long to reach the Rankin Lumber Co.'s new mill at Hatchie river bridge; W. H. Courtenay, chief engineer, Louisville, Ky.

Carrizo Springs, Texas.—Messrs. D. E.

Hirschfield and Claude V. Burkhead, representing Texas capitalists, are reported to be promoting a plan to build a railway from Carrizo Springs to a point on the International & Great Northern Railroad.

Chattanooga, Tenn.—W. J. Oliver & Co. are reported to have contract from the Southern Railway for construction of a double track from the mouth of the tunnel to Chattanooga by way of the Belt Line. W. H. Wells is engineer of construction Southern Railway at Washington, D. C.

Covington, Tenn.—Dr. G. B. Gillespie writes from Covington to the Manufacturers' Record that the name of the railway from Covington to Memphis, Tenn., is the Memphis, Covington & Northern. Preliminary survey is almost complete.

Cumberland, Md.—The Baltimore & Ohio Railroad is reported to be arranging to double-track the line between Cumberland and Fairmont, 70 miles. D. D. Carothers is chief engineer at Baltimore.

Danville, Va.—The Southern Railway is reported to have engineers in the field making surveys between Dry Fork and Danville with a view to changing the route so as to avoid the heavy grades and permit of double-tracking. W. H. Wells is engineer of construction at Washington, D. C.

Enid, O. T.—It is reported that Enid parties will make application for a charter for the St. Louis, Enid & San Diego Railway Co.

Eola, La.—An extra force will, it is reported, be employed grading the Louisiana East & West Railroad between Eola and Ville Platte, and the work rushed to completion. It is also stated that grading will soon be completed for sidetracks and connections with the Southern Pacific at this place.

Fort Worth, Texas.—The Citizens' Railway & Light Co. of North Fort Worth and Arlington Heights has been chartered with \$1,000,000 capital to construct suburban railways and sell electricity. The incorporators are Warren Bicknell, W. O. Allen, George E. White, Sam Rosen and G. E. Montgomery.

Frederick, Md.—Reported that the Westinghouse-Church-Kerr Company of New York has begun construction on the Bradock Heights & Jefferson Railroad Co.'s line between the points named, three and one-half miles. It is expected to have the line completed by the first of the year. Later the road may be extended to Brunswick. James E. Ingram, Jr., of Baltimore, is president of the railway company.

Frostburg, Md.—The Maryland & Pennsylvania Street Railway Co. has been granted a franchise to build a railway connecting Meyersdale, Pa., and Frostburg, Md. C. H. Jennings of Jennings, Md., is said to be interested.

Gainesville, Ga.—The work of converting the line of the Gainesville Midland Railway to Belmont and Jefferson from narrow to standard gauge, it is reported, has been completed. E. L. Douglass is general manager at Gainesville.

Grayson Springs, Ky.—Regarding the report that the Illinois Central Railroad had purchased the Grayson Springs in Kentucky and would build an electric railway connecting the railroad and springs, Mr. A. S. Baldwin, chief engineer, writes the Manufacturers' Record that he knows nothing about such a plan.

Greenville, S. C.—Reported that the plan has been revived to build a standard-gauge railroad from Greenville to Greenwood, about 50 miles. Those interested are Hugh H. Prince and Frank C. Owens of Greenville and W. F. Neal of Birmingham.

Greenville, Miss.—Mr. James R. Robertshaw, treasurer, writes the Manufacturers' Record that the Greenville & Leland Interurban Electric Railroad Co., with \$300,000 capital stock, proposes to build a line between Greenville and Leland, 10½ miles, and later extend south, east and west, taking in a number of small towns. The other officers are Arthur Hiden, president, and Morris Rosenstock, secretary.

Greenville, Miss.—The Greenville & Rolling Fork Railway, which proposes building a line from Leland via Greenville to Rolling Fork, has been incorporated by G. E. Vincent and Van B. Boddie.

Gurley, Ala.—The Alabama Coal, Iron & Lumber Co., it is stated, proposes to build a railroad from Gurley, on the Southern Pacific, up the Paint Rock valley, nine miles, to develop timber and mineral lands. The officers are: George E. McNeil of Chicago, president; Geo. N. Ingle, vice-president and general manager, and J. L. Austin of Chicago, secretary-treasurer.

Hartwell, Ga.—It is reported that preliminary survey has been completed for the proposed Hartwell & Washington Railway Co. It is expected to have the road, which will

be 53 miles long, finished and in operation within 15 months. W. O. Jones is president and J. H. Blackwell, secretary.

Hattiesburg, Miss.—Mr. H. L. Camo, president, is reported as saying that ties and rails are being distributed along the route of the Hattiesburg Light & Traction Co.'s proposed line and that work is to begin at once.

Helena, Ark.—Survey is reported complete and right of way being secured for the Louisville & Nashville Railroad's new route between Parkwood and Helena, five miles. This improvement is for the purpose of reducing the grade between the points mentioned. W. H. Courtenay is chief engineer at Louisville, Ky.

High Point, N. C.—Local business men are said to be considering the proposition of securing an extension of the Randolph & Cumberland Railroad (formerly the Carthage Railroad) to High Point.

Jackson, Tenn.—The question of building an electric railway from Jackson to Halls or Dyersburg, Tenn., via Maury City, is reported under consideration. The cashier of the Maury City Bank is said to be interested.

Johnson City, Tenn.—The Manufacturers' Record is informed that the South & Western Railroad has let contract to Carpenter & Boxley of Roanoke, Va., for grading 10 miles of line from the Southern Railway crossing at Johnson City northwestward toward Kingsport. Contract for a second 10 miles is reported let by the same company to Walton, Wilson & Co. of Knoxville, Tenn.

Kansas City, Mo.—Mr. A. F. Rust, resident engineer, Kansas City Southern Railway, writes from Kansas City to the Manufacturers' Record denying the report that survey is being made for an extension from Mena to Paris, Texas.

Macon, Ga.—Reports state that efforts are being made to secure the establishment of new union terminals in Macon. S. F. Parrott is vice-president of the Georgia Southern & Florida Railway at Macon, and A. B. Andrews, first vice-president of the Southern at Raleigh, N. C.

Memphis, Tenn.—Work is reported to be progressing rapidly on the Memphis, Paris & Gulf Railway, and train service is expected to be in operation before the first of the year.

Mesquite, Texas.—Local capitalists are said to be promoting a plan to secure an interurban railway from Dallas to Mesquite. Mr. J. Mercer Carter of Dallas can probably give information.

Natchez, Miss.—The New Orleans, Natchez & Pacific Railroad Co. is reported to have been granted charter to construct its proposed line from New Orleans through Mississippi to Natchez and beyond, about 160 miles. Among the incorporators are Rufus W. Larned, Charles T. Chamberlain, Clarence E. Moritz, Thomas Reber and W. A. S. Wheeler. A. B. Wheeler is president, and W. J. Poltevant, vice-president, both of New Orleans; R. F. Larned, treasurer, and C. E. Moritz, secretary, Natchez.

New Albany, Ga.—The Louisville, New Albany, French Lick & West Baden Traction Co. is reported to have filed an amended petition with the Board of Public Works asking right of way and franchise over certain streets in the city and suburbs.

Newbern, N. C.—Work on the Washington & Newbern branch of the Raleigh & Pamlico Sound Railway is reported to be progressing, grading being complete from Newbern to Vanceboro. C. O. Haines is president.

Norfolk, Va.—Reported that the Norfolk & Portsmouth Traction Co. proposes to extend its Churchland division to Suffolk. R. Lancaster Williams is president.

Pearlsburg, Va.—Mr. Barnard Mason, director, informs the Manufacturers' Record that the Giles County Electric Railway Co. has been chartered to build a line from Pearlsburg to the Norfolk & Western depot, one and one-half miles; also to connect with the new Tidewater Railroad when completed. The ultimate object is to extend the line to Newport, 16 miles, and to Narrows, in the opposite direction, five miles; total 21 miles. Sufficient stock has been subscribed to organize, and the officers are C. T. Palter, president; Thomas J. Pearson, vice-president; M. P. Farrier, secretary-treasurer. The directors include the officers and John W. Williams, Martin Williams, J. H. Woodram and Barnard Mason, all of Pearlsburg.

Point Pleasant, W. Va.—Surveys supposed to be in the interest of the Deepwater and Tidewater are reported being made on the south side of the Kanawha river. H. Fernstrom is chief engineer of the Tidewater Railway at Norfolk, Va.

Purcell, I. T.—The St. Louis & San Fran-

isco Railway is reported to be contemplating building a line from Oklahoma City, Okla., to Purcell, about 30 miles. The Commercial Club is said to be interested. J. F. Hinckley is chief engineer of the Frisco system at St. Louis, Mo.

Port Arthur, Texas.—Reported that the Kansas City Southern Railway will make extensive improvements to its terminals at Port Arthur. A. F. Rust is resident engineer at Kansas City, Mo.

Raleigh, N. C.—The Raleigh & Southport Railroad Co. is reported to have its road in operation between Raleigh and Fayetteville. J. A. Mills is president and general manager at Raleigh.

Richmond, Va.—The Northern Railroad of Virginia has been chartered by Baltimore capitalists to build a railway from some point in Frederick county through Clarke, Loudon, Fairfax and Alexandria counties to a point opposite Washington or Georgetown, about 100 miles. The incorporators are Simon C. Martin of Sparrows Point, Md., president; William D. Allen, vice-president; G. M. Armstrong, secretary-treasurer; Harvey Middleton, W. A. Mason, Frank H. Sloan and Chas. M. Ackerman. The principal office of the company will be at Berryville, Va.

Romney, W. Va.—The Hampshire Southern Railroad Co., with capital stock of \$30,000, has been chartered in West Virginia to build a railway from Spring Gap via Romney through Grant and Hardy counties to Durbin, about 100 miles, where connection will be made with the Chesapeake & Ohio and Western Maryland railroads. The incorporators are Duncan Sinclair, superintendent of the New Central Coal Co. in the Fairmont field; Raymond Abbatichio and William B. Cornwell of Fairmont, John J. Cornwell of Romney and John T. McGraw of Grafton, W. Va.

Salem, Va.—Contracts for building the 10 miles of line of the Catawba Valley Railroad from Salem to Catawba Valley have been awarded as follows: James Smith, two miles, and Hampton Johnson, eight miles. The road will tap sand beds and coal property.

Shawnee, O. T.—Reported that the Shawnee-Tecumseh Interurban line has been completed and put in operation.

Snyder, Texas.—A contract is reported signed between citizens of Snyder and F. W. James and associates of Abilene, Texas, to secure the building of a railroad. The route of the proposed line, which, it is stated, is to be known as the Roscoe, Snyder & Pacific, is from a point at or near Roscoe on the Texas & Pacific Railroad via Snyder to a point in New Mexico.

Sulphur, I. T.—The Oklahoma City, Lexington & Sulphur Springs Electric Railway Co. is reported reorganized with Col. E. P. Spears of Dallas, Texas, as president and general manager. Colonel Spears is quoted as saying that all financial arrangements have been completed to build the line between Sulphur and Oklahoma City, O. T., 90 miles, and it is expected to have it in operation within a year.

Tampa, Fla.—Contract is reported let for grading 50 miles of the Tampa & Jacksonville Railroad (a Gainesville & Gulf enterprise). When completed this will bring the road from Fairfield, its present southern terminus, to Brooksville. C. N. Atchison is general manager at Gainesville, Fla.

Washington, D. C.—Contract is reported let by the Pennsylvania Railroad Co. for building the last piece of work in connection with the railroad improvements at Washington. Alex. C. Shand is chief engineer at Philadelphia, Pa.

Waxahatchie, Texas.—Grading is reported under way on the last mile of the Trinity & Brazos Valley Railroad, and tracklaying is expected to begin within three months. M. Sweeney is vice-president and general manager at Cleburne, Texas.

Wheeling, W. Va.—The Rapid Transit Railway, recently chartered to build a line from Wheeling to Seabright Hollow, W. Va., has elected the following officers: Albert Shenck, president; A. S. List, vice-president; George Folmar, secretary-treasurer. The directors include the officers and Otto Shenck and J. V. Braden.

Wilson, N. C.—Eight miles of grading have been completed from Wilson toward Raleigh, on the Raleigh & Pamlico Sound Railroad, and it is stated that tracklaying is to begin immediately. It is expected to have the road completed from Raleigh to Washington by next June. C. O. Haines is president.

Winchester, Va.—The Manufacturers' Record is informed that the Winchester & Washington City Railway Co. has been incorporated, with principal office at Winchester. S. H. Hansbrough is president; Shirley Car-

ter, secretary and treasurer, and S. L. Hoover, general manager.

Street Railways.

El Paso, Texas.—Tracklaying is reported begun on the street railway, L. T. Bortz being in charge of the work.

Fort Worth, Texas.—The Northern Texas Traction Co. has been granted a franchise to extend its street railway in different parts of the city.

Fort Worth, Texas.—Reported that application will be made by the Northern Texas Traction Co. to extend its line of street railway in different parts of the city. H. T. Edgar is vice-president and manager.

Gadsden, Ala.—The Etowah Light & Power Co. is reported to have announced that it will begin construction of a street car line to its plant on Wills creek, about two miles from Attalla.

Gallipolis (P. O. Henderson), W. Va.—Mr. Mike Duty of Leesboro, W. Va., has been granted a franchise. It is reported, to build a street railway.

Houston, Texas.—The Houston Belt & Terminal Railway Co. gives notice that a meeting will be held September 20 to consider the proposition of issuing \$5,000,000 of bonds to finance the constructing, completing, improving and operating of its railway. L. W. Murdock is secretary.

Huntington, W. Va.—Local and Memphis capitalists are said to be considering a plan to build a street car line in Huntington.

Jackson, Tenn.—The Jackson Railway & Light Co. is reported to have received 11 carloads of relaying rails to be used on extensions of its street-railway system.

Knoxville, Tenn.—Reported that work of double-tracking the Main-avenue line of the Knoxville Railway & Light Co. is about to begin.

Mobile, Ala.—President J. Howard Wilson of the Mobile Light & Railroad Co. is reported as saying that the Beaugard and Charleston street electric railway line will be double-tracked.

Pensacola, Fla.—Reported that actual work has commenced on the extension of Stone & Webster's street railway line from Fort Barrancas, about nine miles.

Richmond, Va.—Tracklaying is to begin immediately on the Virginia Passenger & Power Co.'s extension to the State fair grounds.

Starkville, Miss.—The Starkville Street Railway Co. has been incorporated with \$30,000 capital by C. E. Ard, Simon Fried, F. L. Logan and others.

Tulsa, I. T.—Reported that tracklaying will begin within 30 days on the Tulsa Street Railway.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Aluminum Castings.—Roth Elevator Safety Machine Co., Inc., Richmond, Va., wants addresses of aluminum-casting foundries. Address August A. Roth, president, care Dietz Printing Co., 12th and Franklin streets, Richmond, Va.

Amusement Devices.—J. E. Keller, Lexington, Ky., wants to correspond with manufacturers of all kinds of amusement devices.

Bank Equipment.—Otho Fowler, Kuttawa, Ky., wants entire equipment for bank building.

Boiler.—See "Engine and Boiler" item of American Manufacturing Co.

Boiler.—Oltorf-Emerson Ginning Co., Martin, Texas, wants 100-horse-power boiler.

Boiler.—See "Engines and Boiler."

Box Machinery.—Holley-Matthews Manufacturing Co., Sikeston, Mo., wants prices on box machinery.

Bricks.—C. G. Sayre, 145 Sayre street, Anderson, S. C., wants to buy pressed bricks—red and buff; wants samples and prices.

Bridge.—Office of Commissioners District

of Columbia, Washington. Sealed proposals will be received until September 15 for constructing plate-girder bridge on K street over Rock creek and the C. & O. canal between 28th and 29th streets N. W. Blank forms of proposal, specifications and information may be obtained at Room 43 District Building.

Bridge.—The contract to furnish all material and labor of every description and to build a bridge across Chattahoochee river between the counties of Fulton and Cobb, in Georgia, at Powers Ferry, will be let at public outcry at the site at 11 o'clock A. M. October 25; bridge to consist of three steel spans of 153 feet each on pin centers; spans to rest upon steel tubular piers about 23 feet in height, and concrete abutments at each end, all resting upon rock foundations; total length of bridge 465 feet; one roadway 16 feet in the clear. All set forth and described by plans and specifications, which can be seen at office of clerk of board of commissioners of roads and revenue at Atlanta and at office of ordinary of Cobb county at Marietta. Bidders must file checks of \$500, certified by some bank in Atlanta or Marietta, etc. The right is reserved to reject any and all bids; H. L. Culbertson, chairman commissioners of roads and revenues of Fulton county, Georgia; John Awtrey, ordinary of Cobb county, Georgia.

Broom Machinery.—Box 96, Watertown, Tenn., wants information regarding machinery for broom factory.

Concrete Mixer.—Faragher Engineering Co., 53 Public Square, Cleveland, Ohio, wants a Ransome or Smith concrete mixer.

Contractors' Equipment.—Kenefick, Hammond & Quigley Construction Co., Beaumont, Texas, will probably want second-hand 25-ton-pull Lidgerwood rapid unloader with center plow and cable.

Crushing Machinery.—See "Lime Plant."

Electric Fixtures.—Otho Fowler, Kuttawa, Ky., wants electric-lighting fixtures for bank building.

Electric-light Plant.—Blacksburg Power & Supply Co., Inc., Blacksburg, Va., wants equipment for electric-light plant of 700 to 1000 lights capacity.

Electric Plant.—John B. King, Texarkana, Texas, will want equipment for electric-light and power plant.

Electric Plant.—Kentucky Electric Co., 7th and Ormsby avenue, Louisville, Ky., will want to purchase equipment for big electric plant with underground distribution.

Electrical Construction.—Giles County Electric Railway Co., Bernard Mason, director, Pearisburg, Va., wants to engage civil and electrical engineer to take charge of development of water-power, erection of electric plant, construction of railway, etc.

Electrical Supplies.—Roth Elevator Safety Machine Co., Inc., Richmond, Va., wants addresses of dealers in slate or marble for switchboards, etc., and manufacturers of electrical supplies. Address August A. Roth, president, care Dietz Printing Co., 12th and Franklin streets, Richmond, Va.

Engine.—American Manufacturing Co., Atlanta, Ga., wants 14-horse-power traction engine (second-hand) in good condition. Give lowest prices and state condition fully.

Engine.—V. G. Richardson & Co., Roanoke, Va., want cableway engine with double drum for driving endless hauling rope; second-hand will do.

Engine.—See "Gas-producer Plant."

Engine.—Jos. L. Sell, superintendent city electric-light plant, Cumberland, Md., will want engine to operate electric-light plant.

Engine.—James Reynolds, Moshelm, Tenn., wants second-hand 10-horse-power portable engine.

Engine and Boiler.—American Manufacturing Co., Atlanta, Ga., wants portable engine of 14 or 15 horse-power, second-hand in good condition, attached to boiler; Frick or Peerless make if all right. Give the very lowest prices and state make and condition fully.

Engines.—Equitable Steam Specialty Co., 947 Equitable Building, Baltimore, Md., wants the agency for a stationary and marine gasoline engine.

Engines and Boiler.—Romberger Foundry & Machine Co., Winona, Miss., wants prices on steam engines 5 to 10 horse-power, about 200 R. P. M.; also on boiler for engine.

Engineer Wanted.—See "Electrical Construction."

Fireproof Flooring.—T. T. Knox, governor of National Home for Disabled Soldiers, National Soldiers' Home, Virginia, wants information regarding laying of a fireproof floor of cement or other material.

Gas Plant.—Newton M. Lee, Denton, Texas, will accept estimates on cost of installing gas plant.

Gas-producer Plant.—Blacksburg Power & Supply Co., Inc., Blacksburg, Va., wants gas-producer plant, 100 to 125 horse-power, and engine.

Heating and Ventilating Apparatus.—See building note under Clarksville, Tenn.

Heating Plant.—Otho Fowler, Kuttawa, Ky., wants hot-water heating plant for bank building.

Hoisters.—Wallace Brothers, Norfolk, Va., want belted and direct hoisters to be used in connection with gasoline engine. Manufacturers are asked to correspond.

Hoisting Equipment.—See engine item mentioning V. G. Richardson & Co.

Hoisting Engines.—Faragher Engineering Co., 53 Public Square, Cleveland, Ohio, wants two double-friction double-drum hoisting engines.

Hoisting Equipment.—Equitable Steam Specialty Co., 947 Equitable Building, Baltimore, Md., wants manila and wire rope, wood and iron blocks, hoisting engines; also wants to represent manufacturers of the above.

Hose.—Bids will be received by Ennis M. Douglass, city register, Memphis, Tenn., up to October 4 for furnishing 5000 feet of double-jacket, rubber-lined cotton hose, two and one-half inches internal diameter, in sections of 50 feet, fitted with brass couplings, with Memphis standard thread, weight not less than 55 pounds to the section; 1000 feet of five-ply rubber hose, two and one-half inches internal diameter, in sections of 50 feet, fitted with brass couplings, with Memphis standard thread; all hose to be furnished with guarantee not less than three years and to withstand pressure of not less than 400 pounds to square inch. A certified check for \$250 must accompany each bid.

Ice Machinery.—Blacksburg Power & Supply Co., Inc., Blacksburg, Va., wants ice machinery for four-ton plant.

Ice Plant.—W. G. Thornhill, Matagorda, Texas, wants 10 to 15-ton ice plant.

Ice Plant.—M. E. Marcum, Monticello, Ky., wants catalogues and prices on ice plant for towns of 1500 to 2000 inhabitants.

Insulating Materials.—Blacksburg Power & Supply Co., Inc., Blacksburg, Va., wants sheet cork for cold-storage plant.

Lath Mill.—American Manufacturing Co., Atlanta, Ga., wants complete lath mill (second-hand) in good condition. Give best cash prices and state condition fully.

Laundry Machinery.—E. H. Jordan, Covington, Ga., wants laundry machinery; capacity 100 to 150 families.

Levee Work.—Sealed proposals for 14,000 cubic yards levee work will be received by Red Fork Levee Board until September 25. The board reserves right to reject any or all bids. Information regarding the work will be furnished on application to J. E. Peoples, Red Fork, Ark. By order of board, G. T. Blackwood, president.

Lime Plant.—A. J. Baldwin & Co., 102-104 Main street, Dawson, Ga., wants addresses of manufacturers of machinery for making lime, also machinery for handling the rock from which lime is made.

Logging Equipment.—Anchor Sawmill Co., Ellenville, Miss., wants one McGiffers log loader and skidder. (See "Railway Equipment.")

Machine Tools.—N. S. Sherman Machine and Iron Works, Oklahomá City, O. T., wants prices on shaper, lathe, drill press, cold saw for beams, punch and shears.

Machine Tools, etc.—Proposals for machine tools, saws, carbide wheels, wheel, Tobin bronze, sheet-iron, steel roofing, wire screening, twist drills, files, vises, farrier's tools, launch steering wheels, axle pulleys, oilers, monkey wrenches, magnesium, hand levels, numbering machines, general office supplies, etc. Isthmian Canal Commission, Washington, D. C., will open bids September 14 for furnishing above-mentioned articles. Blanks and full information (Circular No. 326) may be obtained from office or offices of assistant purchasing agents, 24 State street, New York city; Custom-house, New Orleans, La.; 36 New Montgomery street, San Francisco, Cal.; and 410 Chamber of Commerce Building, Tacoma, Wash.; also from chief quartermaster, Department of the Lakes, Chicago; depot quartermaster, St. Louis; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Department of the Gulf, Atlanta, Ga., and the Commercial Club, Mobile, Ala.

Machinery and Supplies.—Equitable Steam Specialty Co., 947 Equitable Building, Baltimore, Md., wants to correspond with manufacturers of mine, mill, railroad, contractors', engineers', machinists' and plumbers' supplies relative to taking agencies; also makers of steam, pneumatic, hydraulic and electrical machinery.

Mining Machinery.—Black Mountain Col-

Series Co. will receive catalogues of mining machinery. Address William Ramsay, manager, Ozona, Tenn., until October 1; after then address Pennington, Va.

Miscellaneous Supplies.—Sealed proposals, in triplicate, will be received at office of general purchasing officer, Isthmian canal commission, Washington, D. C., until September 21 for furnishing sanitary fixtures, brass pipe and fittings, globe valves, steel, wire, wire cable, copper sash cord, drills, pipe tools, hammers, vises, door rail, wheelbarrows, soldering coppers, sailometers, riddles, range boiler, filters, rubber gaskets, oilstones, polishing and emery wheels, saws, cant-hook handles, tacks, staples, rivets, screws, hinges, glass cutters, funnels, palls, water dippers, cuspidors, lamps, brooms, scrubbing brushes, mops, ice tongs, shears, wagon parts, hose, hemp packing, lace leather, rules, candles, matches, wrapping paper, sheet fiber, mirrors, etc. Blanks and full information (Circular No. 23) may be obtained from office or offices of assistant purchasing agents, 24 State street, New York city; Custom-House, New Orleans, La.; 36 New Montgomery street, San Francisco, Cal., and 410 Chamber of Commerce Building, Tacoma, Wash.; also from chief quartermaster, Department of the Lakes, Chicago; depot quartermaster, St. Louis; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Department of the Gulf, Atlanta, Ga., and the Commercial Club, Mobile, Ala.

Paving.—City of Anniston, Ala., will open bids September 5 for paving, either with brick or concrete, about 55 blocks of sidewalk. Thos. E. Kilby is mayor.

Paving.—Bids will be received by Harry McElroy, city recorder, McMechen, W. Va., until September 15 for grading and paving 7th street, embracing about 1500 square yards, according to plans and specifications on file in the office of W. B. McMechen. Certified check for \$1000 must accompany each bid. Usual rights reserved.

Paving.—The Baltimore (Md.) Board of Awards will receive bids until September 19 for grading and paving portions of Lombard street and Millington avenue with asphalt blocks, sheet asphalt, bitulithic, vitrified brick or macadam. Specifications and proposal sheets may be obtained from the commissioners for opening streets, J. Arthur Wickham, president, Hoan Building, Lexington and Holiday streets.

Paving Bricks.—City of St. Augustine, Fla., will soon want 500,000 vitrified paving bricks. Address L. L. Shims, chairman street and lane committee, Box 705. Will also want about 6000 linear feet of granite curb.

Planing Mill.—American Manufacturing Co., Atlanta, Ga., wants planing mill (second-hand) in good condition. Give lowest cash prices and state condition fully.

Plumbing.—See Building Note under Clarksville, Tenn.

Pumping Machinery.—Enrique Moret, Pintor Sorolla No. 3, Valencia, Spain, wants catalogues and prices on pumping machinery to elevate water from artesian wells or springs. Water stays three to six meters below surface. Wants machinery with power enough to raise 2000 to 4000 liters per hour to maximum height of 16 to 20 meters; motor power to be electricity, using continuous current of 120 volts.

Railway Equipment.—Jefferson Development Corporation, Whaley, Va., wants one mile of railroad steel from 9 to 12 pounds.

Railway Construction.—Giles County Electric Railway Co., Bernard Mason, director, Pearisburg, Va., wants to engage civil and electrical engineer to take charge of railway construction.

Railway Equipment.—Anchor Sawmill Co., Ellisville, Miss., wants 16 miles logging railroad and two locomotives. (See "Logging Equipment.")

Railway Equipment.—Sealed proposals, in triplicate, will be received at office of general purchasing officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. September 6 for furnishing 40 mogul freight locomotives and 5000 gross tons steel rail. Blanks and full information (Circular No. 32) may be obtained from office or offices of assistant purchasing agents, 24 State street, New York city, and Custom-House, New Orleans, La.; from chief quartermaster, Department of Lakes, Chicago; depot quartermaster, St. Louis; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Department of Gulf, Atlanta, Ga., and Commercial Club, Mobile, Ala.

Railway Equipment.—Kenefick-Hammond-Quigley Construction Co., Beaumont, Texas, is in market for immediate delivery of 75 Rogers ballast cars.

Road Machinery.—Thomas County Commissioners, W. A. Pringle, Thomasville, Ga., want traction engines for road work.

Road Building.—Bids will be received at the courthouse, Clinton, Tenn., for the construction of 13.3 miles of pike road from Clinton to Briceville. Two separate bids are required—one from Clinton to Coal Creek, a distance of about 10 miles, and one from Briceville to Coal Creek, a distance of about 3 1/2 miles. Contractors are expected to investigate the line, so as to bid intelligently on the same; J. K. P. Wallace, chairman county pike commissioners.

Rock.—United States engineer office, 3232 Prytania street, New Orleans, La.—Sealed proposals for furnishing 7000 tons of rock at points on Mississippi river below Vicksburg, Miss., will be received until September 21, and then publicly opened; information furnished on application; J. F. McIndoe, captain, engineers.

Rolling-mill Machinery.—P. W. E., care of the Manufacturers' Record, wants to buy rolling mill. A plant idle that can be removed to another location would be suitable.

Sawmill.—American Manufacturing Co., Atlanta, Ga., wants complete sawmill (second-hand) to be run with 14 horse-power. Give best cash prices and state condition fully.

Shingle Mill.—American Manufacturing Co., Atlanta, Ga., wants complete shingle mill (second-hand) in good condition. Give best cash prices and state condition fully.

Soap Machinery.—W. H. Crawford, First National Bank Building, Nashville, Tenn., wants machinery to equip soap factory.

Standpipe.—Town of Salem, N. C., wants a standpipe 20 feet in diameter and 110 feet high. L. B. Brickenstein is chairman of street committee.

Starch Machinery.—E. W. Halstead, Santiago de las Vegas, Cuba, wants addresses of manufacturers of machinery for making starch from yuca (cassava).

Steel Ceiling.—J. C. Blackburn & Co., Fort Myers, Fla., want prices on steel ceiling.

Sugar Machinery.—Western Machinery & Stores Co., Hornley road, Sitaram Buildings, Bombay, India, wants plans, prices and information on sugar manufacturing and re-

fining plants, five to ten tons capacity; plants to be portable. Send full details.

Textile Machinery.—Greensboro Supply Co., Greensboro, N. C., wants full particulars and lowest prices on good second-hand machinery as follows: Corliss engines, spoolers, reels, twisters, ballers for Denn warpers, 4x8-inch fly frames, 4 1/2x9-inch intermediate frames and Denn warper.

Tin-tube Machinery.—A. Lewand, Newaki 114, St. Petersburg, Russia, wants to correspond with manufacturers of machinery for making tin collapsible tubes for paints and colors.

Water-power-development Machinery.—See "Electrical Construction."

Water-works.—J. W. Hanson, city clerk, Neosho, Mo., will receive bids until September 20 for furnishing materials and constructing improvements and extensions to water-works in accordance with plans and specifications on file at office of city clerk and at office of Burns & McDonnell, engineers, 709-10 Dwight Building, Kansas City, Mo., after September 10, where specifications, instructions to bidders and blank proposals can also be obtained. Extra copies of plans and specifications may be obtained from the engineers on deposit of \$5. Certified check for \$1000 must accompany each bid; usual rights reserved; Horace Bowers, mayor.

Wire Fencing.—Eastman Cotton Mills, Eastman, Ga., wants addresses of manufacturers of wire fencing.

Wire Rope.—See "Hoisting Equipment."

Wooden Novelties.—P. N. Youngblood, Norfolk, Va., wants to correspond with manufacturers of wooden novelties relative to having a small wooden novelty manufactured in large lots.

Woodworking Machinery.—Motz Bros., Lincolnton, N. C., want a rebuilt second-hand planer and matcher, double cylinder, weight 4000 to 5000 pounds.

Woodworking Machinery.—See "Lath Mill," "Planing Mill," "Shingle Mill" and "Sawmill."

INDUSTRIAL NEWS OF INTEREST

Brick Plant for Sale.

A brick manufacturing plant complete, but little used, is offered for sale by J. M. Dickinson of Narcoosser, Fla. Write him for details.

For Architects and Builders.

The Macon County Bank of Franklin, N. C., John U. Mann, secretary, invites proposals from architects for plans and specifications and from contractors for estimates on erection of bank building.

Southern Timber Lands.

Some 65,000 acres of virgin timber land in Florida is offered for sale. This property is reached by water and rail transportation. For information address or telegraph John W. Jackson, Palmetto, Fla.

Hicks Locomotive and Car Works.

The Hicks Locomotive and Car Works of Chicago announces the removal of its offices to the Fisher Building, seventeenth floor. This will give the company the additional facilities needed for its rapidly-growing business.

The Weir Frog Co.

Mr. Charles Partington has resigned as vice-president and manager of the Weir Frog Co., manufacturer of frogs, switches, etc., Cincinnati, Ohio. The management is now with W. W. Allen, formerly connected with the Ramapo Iron Works of Hilburn, N. Y.

Big Order for Paving Bricks.

The city of Parkersburg, W. Va., has some extensive plans under consideration for paving improvements, and in connection with this the Spilman Brick Co. of Spilman, W. Va., has contract to furnish 7,000,000 paving bricks.

Mr. F. du P. Thomson, Engineer.

Dr. F. du P. Thomson of Buffalo, N. Y., announces that he is closing his engineering offices in that city in order to give his time entirely to the interests of the Wheeling Mold & Foundry Co. of Wheeling, W. Va. Correspondence for Mr. Thomson should in future be addressed to Wheeling.

Civil and Electrical Engineer Wanted

The Giles County Electric Railway Co., Bernard Mason, director, Pearisburg, Va., wants to engage a civil and electrical engineer. It contemplates the development of

water-power, the erection of electric plant and the construction of an electrical railway, and the engineer is wanted to take charge of this project.

To Manufacture Marine Gasoline Engines.

The Wallace Brothers of Norfolk, Va., intend to establish plant for the manufacture of marine gasoline engines, but have not completed arrangements for erecting shops. They are looking for belted and direct hoisters to sell in connection with their line of engines, and invite manufacturers to correspond.

Death of Henry A. Hittner.

The trade will regret to hear of the death of Henry A. Hittner of Henry A. Hittner's Sons, Philadelphia, Pa. Mr. Hittner was well known to buyers of machinery and mechanical equipment because of his long connection with the Hittner enterprise. The firm will be continued for the purpose of dealing in machinery and mechanical supplies of all kinds.

Contract for Underwriters Engineering Co.

The Stayman Manufacturing Co. of Jersey City, N. J., has awarded to the Underwriters Engineering & Construction Co., 1170 Broadway, N. Y., contract for the construction of a large machine and forge shop. The buildings throughout will be constructed of reinforced concrete. The plant will be constructed on the cost-plus-a-fixed-sum basis.

Referring to Broderick & Bascom Rope.

A circular now being distributed by the Broderick & Bascom Rope Co. of St. Louis, Mo., contains a number of letters from users of wire rope manufactured by that company. These letters refer in a complimentary way to various kinds of wire rope manufactured by the company, especially its B. & B. round-strand ropes for elevator service.

Wesco Soldering Paste.

The Wesco Supply Co. of St. Louis is placing on the market its Wesco soldering paste and Wesco soldering stick, which are particularly adapted for armature work, especially in connection with soldering the armature leads to the armature. It claims that the tendency of all other soldering pastes and sticks is to carry an arc across between the leads unless great care is taken to see that every bit of the soldering stick or paste is removed before the outside wrappings are put on. The Wesco stick or paste

has a tendency to act more as an insulator than as a conductor of current, so if any of it is left in the armature there is no danger of its causing a burn-out.

Demand for the Unique Pad.

The constant demand for the pads of the Unique Water Pad Co. for moistening envelopes and gummed surfaces proves that an article may be little in size but great in utility. Renewed orders for the pads are also indicating that people are pleased to be relieved of the habit of licking stamps and envelopes. Write the company at Asheville, N. C., for information as to its little novelty.

Cudworth, Axtell & Co.

Messrs. Cudworth, Axtell & Co., Kansas City Life Building, Kansas City, Mo., are preparing plans and specifications for improvements in power-house of the Riverside Light & Power Co. of Abilene, Kan. These betterments will cover new reinforced concrete flume and penstock; the installation of one 50-inch Samson turbine and addition suitable for another 50-inch wheel as the future demands necessitate.

Want to Represent Manufacturers.

Advices have been received by the Manufacturers' Record from Bynum & Russ that they want to secure the selling agency for a few reputable manufacturers for New Orleans and the Southwest. Makers of mill machinery, mechanical equipments of various kinds, factory supplies and other kindred articles are invited to correspond with the firm. Messrs. Bynum & Russ are general sales agents, with offices at 212 Godeaux Building, New Orleans, La.

Phoenix Company in Pittsburg.

In order to be in closer touch with its trade in the Pittsburg district, the Phoenix Iron Works Co. of Meadville, Pa., has established a branch office at 204 German National Bank Building, Sixth avenue and Wood street, in that city. Mr. Joseph McK. Speer will be resident director of the company, and there will also be a representative with headquarters at the address given. Mr. E. P. Cullum, secretary of the company, will spend a portion of his time at the Pittsburg office.

News from B. M. Root Company.

The B. M. Root Company of York, Pa., states that it has closed contract for the exclusive agency of its portable saw table for Western Missouri, Kansas, Oklahoma Territory, Indian Territory, Southern Iowa and Nebraska. The Kansas City Contractors' Supply Co., Kansas City, Mo., takes this agency. Flow handle machinery, saw benches and other kindred products are manufactured by the B. M. Root Company at its extensive plant in York.

They Are Using Voltax.

The residence of Isaac N. Seligman at Irvington, N. Y., is being furnished throughout with electrical service, and the new high potential insulating material, Voltax, will be used exclusively in the underground transmission work. The Kilburne & Clarke Company of Seattle, Wash., has placed a large order for Voltax liquid compound to be used as a waterproof paint for the protection of railway bridges on the Pacific coast. Voltax is manufactured by the Electric Cable Co., 17 Battery place, New York.

The Gas Bench Construction Co.

Owing to a decision that its title is misleading, the St. Louis Gas Construction Co. has changed its name to the Gas Bench Construction Co. and filed new articles of incorporation. The management and offices will remain as heretofore, and inquiries are invited for plans, specifications and estimates on the construction of benches, refillings, water-gas linings and other firebrick work. The company acts as general engineer and builder of coal-gas benches. Its president and general manager is L. C. Hamlink.

Atlanta Office for Wheeler Company.

Southern manufacturers and engineers are manifesting an increasing interest in high-class apparatus that makes for economy and improved efficiency in steam-power plants. One evidence of this interest is indicated in the decision of the Wheeler Condenser & Engineering Co. of 42 Broadway, N. Y., to establish a branch office at Atlanta, Ga. This office is located in the Prudential Building, and W. R. Jennison is the representative. The company manufactures a complete line of steam specialties for improving steam-plant service.

Flouring Plant on Market.

The Banner Mills of Clinton, Mo., are on the market. This plant includes a 1200-barrel flouring mill, a 75,000-bushel elevator and 4x184-foot warehouse, together with complete modern machinery, electric plant, power

plant, office building and other facilities for handling grain. The property is claimed to be an exceptionally good opportunity for investment. It is located on the three lines of railroad and the entire equipment is practically new. For information apply to Jacob Bernheimer, Fort Gibson, Miss., or Sidney Bernheimer, 584 Broadway, New York.

Atlas Engine Works News.

The Atlas Engine Works of Indianapolis, Ind., announces that J. P. Johnston has resigned his position as general sales manager for the Weber Steel Concrete Chimney Co. of Chicago and become sales manager of the water-tube boiler department of the Atlas Engine Works, with his offices in Indianapolis. The Atlas Company will increase its office accommodations in the Fisher Building, Chicago, as soon as the new Fisher Building is completed in November. Mr. Frank H. Baker will continue at the head of the Chicago offices. He has been with the Atlas enterprise for 20 years. Mr. J. F. Davis, formerly with the Pittsburg office, has been transferred to the Chicago office.

Equitable Steam Specialty Co.

The Equitable Steam Specialty Co. has established offices at 947 Equitable Building, Baltimore, Md. This company will have a large warehouse stocked with mine, mill, railroad, contractors', engineers', machinists' and plumbers' supplies, and is now prepared to communicate with manufacturers of these classes of materials. It is seeking the agency of a good stationary and marine gasoline engine, besides being ready to correspond relative to representing manufacturers of steam, hydraulic, pneumatic and electrical machinery of all kinds. Manufacturers who want their products introduced in Baltimore and the territory tributary thereto are urged to write to M. C. Jones, general manager of the Equitable Steam Specialty Co.

The A. H. Andrews Chairs.

Andrews opera chairs need no introduction to the American people. They have been on the market for 40 years and are in use today in the finest places of amusement and entertainment in large cities and towns throughout the land, besides having found their way into many places of like character in foreign lands. Original improvements are continually being applied to the Andrews opera chairs. Another class of Andrews product is portable and folding chairs for use everywhere. Lightness, strength and durability, combined with a simple elegance of design, are advantages possessed by these folding chairs, made of kiln-dried hardwoods, free from knots and defects of any kind. These chairs are manufactured by the A. H. Andrews Company, 174 Wabash avenue, Chicago.

The Jerguson Manufacturing Co.

It is announced that P. A. Jerguson has purchased the entire business and plant of the William T. Bonner Company, 221 Columbus avenue, Boston, Mass. He will continue the enterprise under the name of the Jerguson Manufacturing Co., manufacturing the "Wiltbonco" engineering specialties—reflex water gauges, gauge mountings, glass tubes and glass protectors, water-gauge columns, cushion pressure seated control cocks, blow-off valves, valves for steam and water, waste-oil filters, etc. Mr. Jerguson was originally superintendent for the William T. Bonner Company, and has continued under the management of C. A. Clarke, trustee. He has had an extended experience in practical marine, stationary and locomotive engineering, and is fitted for manufacturing the special equipment which he proposes to market.

"The Standard" Scales.

Referring to recent sales, the Standard Scale & Supply Co. of Pittsburg, Pa., mentions some important contracts. This company manufactures "The Standard" scales. It has recently furnished a large number, including a railway scale, for the government navy-yards on the Atlantic coast. One large scale installed at the Brooklyn navy-yard is of an improved style of construction designed by the company, the scale being built with a third or dead rail, the improvement consisting of giving uniform support to this dead rail throughout the entire length of the scale pit and maintaining the live and dead rails at the same level on top of the scale platform. Strong claims are made for this style of construction, and it was partly because of this construction that the order was secured. Numerous scales have also been furnished for the Isthmian canal work.

Carborundum Plant for Germany.

The Carborundum Company of Niagara Falls, N. Y., has started construction on a large branch plant in Germany. It is the sole American manufacturer of carborundum in the various forms for grinding purposes, and the demands of its European trade have increased

so rapidly that the European branch has become necessary. The Deutsche Carborundum Werke, G. m. b. h., has been organized, and will be located at Reisholz, a manufacturing suburb of Dusseldorf. Five kilns for vitrified wheels are provided for, two to be built at once; buildings to be of concrete, fireproof construction; plant completed will embody the latest and most improved machinery for manufacture of abrasive materials. The Carborundum Company has for some time maintained large stores in London and Berlin, and has agencies in most of the principal cities of Great Britain, Germany, Denmark, Norway, Sweden and Russia.

American Forges for Japan.

A large order for forges recently placed with American manufacturers is typical of the readiness of the Japanese to take advantage of the latest mechanical improvements. Forges of special design are called for, to be shipped in carload lots in order to secure the lowest freight rate to the Pacific coast. The order includes 58 forges of various types for very heavy work, but the design which will be of particular interest is the novel construction of the large heating furnaces which were furnished for use only in connection with power hammers and drop-forging work. The fuel used is hard coal or coke, as these will not burn to a clinker. The blast for all the forges of this particular installation will be supplied from one large blower, and will be about four ounces pressure. This will enable the furnace to handle easily billets 10 inches square on the end. The Buffalo Forge Co. of Buffalo, N. Y., received the contract.

For Cleaning Carpets and Rugs.

There is now being introduced in the South an article for cleaning carpets, rugs and other similar coverings in dwellings, business houses, hotels, railway stations, steamship stations and other structures. This product cleans by evaporation, and its manufacturers were so successful in introducing it in other parts of the country that it was determined recently to offer it in the South. Carpetina is the name of the article. It is a vegetable product in the form of jelly, which becomes liquid by heating or melting, and is then diluted with boiling water. The result is a soapy liquid of the consistency of thin oil. This is applied with a soft-bristle scrubbing brush, producing a white foam. All dust, dirt, soot or grease is brought to the surface and evaporates or remains in little wads of lint to be easily swept away. Messrs. Carhart & Peck, 700 North Eutaw street, Baltimore, Md., are managers for Carpetina for the Southern States.

The Cincinnati Iron Store Co.

As indicated by its title, the Cincinnati (Ohio) Iron Store Co. conducts a store for the sale of iron materials. The varied character of these offerings is such as to attract the attention of constructors of buildings wherein iron and steel is used, architects who prepare the plans and specifications for these buildings, engineers and contractors for reinforced concrete work, manufacturers who consume iron and steel of various kinds and in various forms, and operators of boiler works and other manufacturing plants. The Cincinnati Iron Store Co. is always ready to make immediate shipment from stock at competitive prices. It offers beams, channels, angles, tees, sheared plates, universal plates, boiler tubes and rivets, structural rivets, bar steel, bar iron, Norway iron, tank steel, flange steel, tool steel, cold-rolled shafting, steel tire, grille wire, turn buckles, sawmill track, light rails, twisted steel bars for concrete reinforcement, etc.

Ball Engine Co. Sales.

The Ball Engine Co. of Erie, Pa., reports the following sales of its new design of side-crank automatic engine: One 100 horse-power, Commonwealth Trust Co. Building, Pittsburg, Pa.; two 200 horse-power, Commonwealth Trust Co. Building, Pittsburg, Pa.; one 200 horse-power, Chicago Varnish Co., Chicago, Ill.; one 165 horse-power, Holdrege Lighting Co., Holdrege, Neb.; one 100 horse-power, Holdrege Lighting Co., Holdrege, Neb.; one 335 horse-power, Philadelphia Post-office Building, Philadelphia, Pa.; one 100 horse-power, Deepwater Railway Co., Deepwater, W. Va.; one 320 horse-power, Henderson Light & Power Co., Henderson, N. C.; one 210 horse-power, T. A. Gillespie & Co., Pittsburg, Pa.; two 320 horse-power, United Hebrew Charities, Chicago, Ill.; one 150 horse-power, Germain-Boyd Lumber Co., Atlanta, Ga.; one 100 horse-power, Washington Gas & Electric Co., Washington, D. C.; one 320 horse-power, Taylor Coal Co., Beaver Dam, Ky.; one 210 horse-power, Isthmian Canal Commission, Washington, D. C.; one 150 horse-power, Natalbany Lumber Co., Montpelier, La.; two 100 horse-power, Jewish Hospital, Cincinnati, Ohio; two 150 horse-power, West Unity Power & Light Co.,

West Unity, Ohio, and two 100 horse-power, Sweetbrier Institute, Amherst, Va.

Interesting Application of an Air Washer.

An objection which has been found to the fan system of indirect heating and ventilation is in the introduction of dust and soot and occasionally foul gases because of proximity of ventilation intake to the street level or a nearby chimney. This would be especially disadvantageous in a room used by draftsmen. Some time ago the Illinois Steel Co. contracted for an interesting application of an air washer to prevent any deposit of dust in its drafting-room. The entering air passes into tempering coils containing 1000 feet of one-inch pipe, and in cold weather raises the temperature of the air to 70 or 80 degrees, whence it proceeds to the air washer. The washing is accomplished by spraying the incoming air through 76 specially-designed nozzles, the direction of water projection being parallel to that of the air-travel. Each nozzle will atomize between one and one-half and two pounds of water per minute as supplied by the pump. So complete is this atomizing that the spray can scarcely be seen. The washing is completed and the free moisture removed by drawing the air through a system of vertical baffle plates. The first part of each plate presents to the air a water-covered surface, to which the solid particles will cling and be left by the air as it passes to the second or rear portion of the plates, which are provided with gutters running lengthwise to break the continuity of the water film, and prevent it from being blown from the far side of the plates by the onrushing air. The water removed from the air runs to a settling tank. There are various other features of this installation which are interesting, but of so much detail that people who may be prompted to consider purchasing such an equipment are directed to address the Buffalo Forge Co. of Buffalo, N. Y., for the remaining particulars. This company furnished and erected the apparatus used by the Illinois Steel Co.

The Hazlehurst Electric Co.

Southern electrical experts have been prominent in the industrial activity of their section during recent years. One of the electrical construction and supply companies which has been established this year is the Hazlehurst Electric Co. of Charleston, S. C. This company began business last March. It is composed of Messrs. G. E. Hazlehurst, Jr., and A. M. Hunt, the former of whom has had eight years' experience in all classes of electrical installation, having successfully managed the electrical department of the Cameron & Barkley Company of Charleston. When Messrs. Hunt and Hazlehurst decided to enter the electrical field they induced that company to sell them its electrical department. Since March the Hazlehurst Electric Co. has secured many important contracts, including the electrical equipment for buildings Nos. 7, 32, 6 and 8 at the Charleston navy-yard; contract for electrical fixtures in barracks bachelor quarters at the post exchange, Fort Moultrie, S. C.; electric wiring for the new union depot at Charleston, and the complete electrical equipment of a number of costly residences now being erected in and near their city. The Hazlehurst Electric Co. is prepared to bid on large or small contracts.

An Important Selection of Electric Lamps.

One of the most difficult and interesting engineering undertakings of our time is the tunnels and terminal facilities being constructed at New York for the Pennsylvania Railroad. Probably no other room in the country will have the proportions of the main waiting-room in the station. The room will be 167 feet high, 300 feet long and 100 feet wide, the building itself approximating 450x800 feet. This latter structure is divided into waiting-rooms, dining-rooms, arcades with shops, offices for railroad officials, baggage-rooms, driveways, a concourse, train platforms, etc., besides which there will also be lighted several miles of tunnels and approaches and the large terminal yards. The unusual proportions of the rooms to be lighted, the long hours of burning and the continuity of service made it necessary to make careful investigations and comparisons before selecting the electric lamp to be used. This has been done, and the choice is the Nernst lamp, manufactured by the Nernst Lamp Co. of Pittsburg, Pa. Every variety of lighting service is called for, and the determination of the energy required was an important problem. On account of the economy of the Nernst lamp the plant will be remarkably small, about 20,000 glower units being specified. There is great variety in the architectural features of each room, and no uniform arrangement of lamps was per-

missible. Each room is a problem in itself, and spaces thus treated are: General waiting-room, 100x300x167 feet; Seventh-avenue arcade, 50x220x64 feet; men's waiting-room, 60x100x60 feet; women's waiting-room, 60x100x60 feet; restaurant, 60x120x33 feet; luncheonroom, 60x120x33 feet; concourse, 60x150x90 feet; 31st-street carriage drive, 50x530x65 feet, and 33d-street carriage drive, 50x530x65 feet.

The Vermont Slate Co.

The unusual building activity and manufacturing operations of the past several years have called for a great variety of products. Important among these is slate for roofing purposes as well as for use in various other ways. There are many noted slate quarries throughout the country and their output has become known for excellence to building contractors, architects, manufacturers, dealers and others who are interested in this kind of material. The Vermont Slate Co. of Zanesville, Ohio, is exceptionally well known for the high character of its products. This company mines, manufactures and exports "Superior" sea-green, unfading green, red and purple roofing slates, the merits of which as to toughness and appearance have not failed to create a large market in all parts of the United States as well as in some other countries. At the St. Louis Exposition a gold medal was awarded these slates for superiority and excellence. As to the advantages of slate for roofing, electrical work, wainscoting, etc., there is little to be said, they being generally recognized by discerning people who are versed in slate products. The Vermont Slate Co. disposes of product from the celebrated Parry quarries at Fair Haven, Vt., a few miles from Granville, N. Y., where the company's main offices are located, the Zanesville office being the headquarters of its Western department. The actual working of the quarries is in charge of the Valley Slate Co., which was organized recently, and the largest portion of the output is taken by the Vermont Slate Co. for distribution to its extensive markets in America, while the European trade is taken care of through offices in London, England. The Vermont Slate Co.'s officers are: Hugh Williams, president; H. F. Rohman, vice-president and treasurer, and Charles P. Eger, secretary. Mr. Rohman is also vice-president and Mr. Williams treasurer and general manager of the Valley Slate Co. (successor to R. E. Lloyd), while H. A. Sharpe is president. Inquiries regarding the Vermont Slate Co.'s offerings will have prompt attention from the Zanesville offices.

TRADE LITERATURE.

A Rustproof Metal.

A booklet now ready for those interested tells about a rustproof metal. It refers to the aluminum-coated steel sheets manufactured by the Steel & Iron Aluminum Coating Co. of Connelville, Pa. These sheets are offered as rustproof, heatproof, adaptable to all climates, not affected by acid fumes, requiring no paint and as a substitute for copper. Interested people are invited to write the company for information.

"The Standard" Scales.

Spanish-speaking purchasers of scales, especially those needed in the sugar industry, are advised that a Spanish catalogue has been issued by the Standard Scale & Supply Co. of Pittsburg, Pa. It was found necessary to publish this Spanish edition because of inquiries from Spanish-American countries. The regular "Standard" products are illustrated and described, besides cart and railway scales for weighing sugar-cane not listed in the company's English catalogue.

A Portable Pumping Outfit.

A power trench pump is described, the text being accompanied by illustrations, in a circular distributed by the Carlin Machinery & Supply Co. of Allegheny, Pa. This power trench pump comprises an excellent portable pumping outfit for the use of contractors and others having clear and dirty water to handle. Those who use diaphragm pumps know their true value as a hand-power pump for handling large quantities of water and can readily appreciate the convenient, durable and economical pumping outfit referred to above.

Again the "Everbest" Magazine.

Again the Everbest Magazine makes its appearance, or, rather, made its appearance some days ago. The August number contains the usual quantity of information regarding things electrical, and those people who want to acquire some wisdom and at the same time some fun should not fail to be readers of the Everbest. Dealers in and users of electrical equipment and supplies especially should not fail to be regular read-

ers of the Everbest, which is published monthly by the Ewing-Merkle Electric Co., 1106 Pine street, St. Louis, Mo.

The Nernst Glowler.

The August number of the Nernst Glowler is issued in connection with the annual convention of the Ohio Electric Light Association last month. In this number is shown what has been accomplished in the face of strenuous competition with cheap natural gas by the Nernst lamp in Ohio. The record is one of which the manufacturer is justly proud, and it is claimed that no other electric lamp can rival the Nernst as a weapon with which to overcome cheap gas competition. If interested, write the Nernst Lamp Co., Pittsburg, Pa., for a copy of the Nernst Glowler.

The Upson Nut Co.'s Catalogue.

The 1906 catalogue of the Upson Nut Co. is a complete price list of the nuts, washers, bolts, rivets, rules and other articles manufactured by that company. It presents full details as to shapes and sizes, together with other data of interest to users of bolts, nuts, etc., and of value to people who are about to place contract for products of this character. These manufactures have an established reputation, and every effort is made to keep the standard high. Only the best materials, machinery and workmen are utilized in manufacturing the Upson specialties. Address the company at Unionville, Conn., or Cleveland, Ohio.

Union Metal Corners.

A booklet now being distributed to those interested tells about the present pictures of the metal corners manufactured by the Union Metal Corner Co., 206 Summer street, Boston, Mass. Building contractors and architects should not fail to learn the desirable features of the Union, Hannon and Goodwin metal-corner beads. These beads are now largely used in building construction, and their merits are steadily increasing the demand. They are doubly galvanized by hot process and will not rust. They are made of rolled-steel plate, one piece, folded edge, naturally straight, and are easy to erect. They fit the corner like a glove and are fire-proof.

The Watson-Stillman Catalogue.

Several weeks ago reference was made to the new catalogue, No. 69, of the Watson-Stillman Company, 46 Dey street, New York. A copy of this publication has been received, and a glance at its pages shows there is listed a complete line of hydraulic tools for steam and street railroads, as well as some other equipment of a similar class. All the tools shown are thoroughly guaranteed, and the manufacturer uses the greatest possible care in the endeavor to make them absolutely reliable. That this reliability has been attained is well known to those purchasers who have dealt with the Watson-Stillman Company in the past. Copies of catalogue will be sent on application.

Cook's Metallic Packing.

A pocket catalogue has been published in the interest of Cook's metallic packing for steam, gas or air. This packing is suitable for power engines of every description and is especially adapted to extra-heavy-duty service on reversing blooming mill engines, blowing engines, rolling-mill engines, marine engines, locomotives and engines operating under very high steam pressure and superheat. Some of the largest industries in the world have adopted Cook's packing, and a list of users presented in the catalogue enumerates some of the best-known manufacturing enterprises in this country. This metallic packing is offered as strictly standard. It will pack any class of engine without change of design, and its distinguishing feature is that no stuffing boxes are ever designed for it. The C. Lee Cook Manufacturing Co. of Louisville, Ky., manufactures this metallic packing.

Modern Building Construction Hangers.

In the activity displayed today in building construction there is no lack of indications that contractors and architects are utilizing all the latest-improved building materials. In view of this it is timely to call attention to the catalogue issued by the Duplex Hanger Co. of Cleveland, Ohio. This catalogue lists, with description and illustration, prices and other details, various types and sizes of hangers which the company has originated and manufactures and which are in large demand throughout the country. Stirrups, wallties, post caps and some other kindred specialties which contractors need for their work are also listed, all in improved shapes, of the best materials indicated for these purposes through years of experience. The Duplex Hanger Co. is represented as general

Eastern agents by Samuel W. Rothrock, 156 Fifth avenue, New York.

The Perfect Mixing Valve.

That well-known manufacturer of plumbing supplies, the Haines, Jones & Cadbury Company of Philadelphia, is issuing an illustrated pamphlet descriptive of one of its specialties which is now in large demand and the trade constantly increasing. The specialty is the "Equality" perfect non-scalding mixing valve. This valve is positive, simple, convenient, and is not affected by varying water pressures. It operates with single lever, and has no springs or eccentrics. The opening or closing of adjoining valves in a series connected to one general supply does not alter the temperature of any valve already in use. Cold water is always admitted first. The "Equality" is equally suitable for private residences, gymnasiums, hospitals, bathhouses and other public institutions, and its mixing principle may be applied to almost any desired use. Write the company for descriptive booklet.

Barber Refrigerating and Ice Machinery.

Artificial refrigeration has been developed from an experimental to an applied science, as is well known. In designing and manufacturing machinery for mechanical refrigeration American manufacturers have been foremost. Among the best-known types of American refrigerating and ice-making machinery is that built for some years by the Barber Manufacturing Co. The Barber machine is stated as the first successful small machine, and more than 1000 equipments are now in operation. Catalogue No. 51 is now being distributed to present the facts regarding the Barber appliances, and it gives details which will interest anyone who contemplates installing plants for manufacturing ice or for cold-storage purposes. The Barber machinery is manufactured by the Creamery Package Manufacturing Co. of Chicago, Ill. Inquiries for catalogue are invited.

Tidewater Virginia and Eastern North Carolina.

The climate of Tidewater Virginia and Eastern North Carolina is a remarkably equable one, due both to its favorable latitude and its proximity to the sea and the warm Gulf stream. Some facts about this section of the South of especial interest to people who think of locating or investing are presented in a little pocket leaflet which the land and industrial department of the Norfolk & Southern Railroad has issued. The publication tells about the climate, the soil conditions, growth in manufacturing, trucking in the South, the culture of fruit, vegetables and other products, the timber and lumber interests, financial conditions, and other things that are of interest to investigators. Copies of this booklet can be obtained from F. L. Merritt, the railroad's land and industrial agent, Citizens' Bank Building, Norfolk, Va.

The Pitt Balance Door.

Architects, building contractors and owners of buildings for business purposes will be interested in an illustrated pamphlet issued for the purpose of describing the Pitt balance door. This door is a comparatively new invention and an entire departure from similar doors heretofore offered. The tests to which this door has been subjected during extremely severe weather have proven its practicability, and purchasers who have adopted it have found the Pitt door satisfactory beyond anticipation, both to them and to the general public. It is a door that will work with all possible ease and at the same time perfectly protect buildings against the cold. This door is balanced in the center, simple in construction, quick in action, opens both ways. Full details regarding the features of this door will be found in the pamphlet. The Pitt Balance Door Co., 127 Fifth avenue, New York, is the manufacturer.

Atlantic Type Passenger Locomotives.

The American Locomotive Co., 111 Broadway, New York, has issued a new catalogue on the subject of Atlantic type passenger locomotives, being the second of a series of catalogue pamphlets illustrating and describing these designs. The usual style of catalogue pamphlets adopted by this company is followed in this case, beginning with a description of the Atlantic type locomotive and presenting the advantages which the type offers for fast passenger service. All of the designs presented in the book (26) are illustrated with half-tone engravings, each engraving being accompanied by a table giving the leading dimensions of the design. The pamphlet also presents the chief dimensions of each design in tabular form, arranged in the order of the total weights of the locomotives. Railroad officials will find this ar-

angement very convenient in deciding upon the type and design of locomotives for any special conditions. This series of pamphlets will ultimately cover the entire product of the company, and copies may be had upon request.

Corrugated Bar Pamphlet.

The notable feature of the recent development in reinforced concrete is the rapid advance and adoption of bars providing a mechanical bond between the metal and the concrete. There is no question but that a reliable, continuous, mechanical bond is necessary to secure permanent and satisfactory results. It is such a bond that the Expanded Metal & Corrugated Bar Co. says it offers in its corrugated bars, Johnson and universal types. These types of the corrugated bar have become known all over the country, many architects, building contractors and building owners using them in the buildings they plan and erect. This question of the corrugated bar is given detailed consideration in a pamphlet which the company is now issuing. Its publication has explanatory text of value, and this is accompanied by photographic views and diagrams which will not fail to furnish some additional information even to those who are well versed in the corrugated bar and its use today in concrete-construction work. Write the company for pamphlet, addressing the main offices in the Frisco Building, St. Louis.

"Catechism on Gas Producers."

Such rapid strides are being made in the general use of gas producers for the economical production of power that there has been a large demand for information that would explain in a simple and practical manner the advantages derived from its adoption. With an idea of meeting this demand Samuel S. Wyer, M. E., has recently compiled a booklet, entitled "Catechism on Gas Producers," which affords an excellent opportunity to those seeking information on gas producers to acquaint themselves with its history, present and future uses and its advantages. This little volume is replete with valuable data rendered in the form of those questions and answers that are most likely to suggest themselves to those looking for this information. It is divided into seven chapters, consisting of fundamental definitions, producer gas and its manufacture, history and status of producer gas, uses of producer gas, cleaning of producer gas, handling of gas producers and the construction of gas producers. Published by the McGraw Publishing Co. of New York; price \$1.00.

Modern Prospecting Machinery.

In the development of mineral deposits one of the first important considerations is the preliminary prospecting by which the exact depth, extent, thickness and value of the minerals are ascertained. This is successfully done with a drill, drilling holes from the surface being speedier and cheaper than sinking a shaft. This prospecting should be done with a thoroughly reliable drill, completely under the control of the operator and which affords means of telling just what is being drilled at all times. The production of equipment of this class has for years been the specialty of the Cyclone Drill Co. of Orrville, Ohio. This company builds prospecting machinery for coal, water, oil, gas, mineral and placer mining. Its equipments including every necessary appliance. The Cyclone catalogue now being distributed gives full particulars regarding the company's offerings and describes in detail its core, hollow-rod and prospecting cable drills. People who think of investigating mineral properties of any kind or of prospecting mineral lands for others should not fail to write for the Cyclone Drill Co.'s catalogue.

Through Frisco's Furnace.

The San Francisco earthquake and fire caused a loss of about \$180,000,000 and destroyed business and residential districts covering an area of more than four square miles. This disaster is teaching many lessons, and experts from all parts of the world have hastened to examine San Francisco's ruins in order to determine if modern American building methods are sound. In connection with this, attention is called to a pamphlet entitled "Through Frisco's Furnace," which tells in an interesting manner of the originality of American architects and engineers and of the soundness of their steel-constructed buildings under the crucial tests of earthquake, dynamiting and fire. The publication tells how well Dixon's silica-graphite paint preserves the maximum strength of steel work of high buildings so that severe strains can be successfully resisted. Photographic illustrations are presented of the modern steel-frame-constructed buildings that withstood the earth shocks and the fire, as well as some other data that will interest archi-

ects, building contractors, construction engineers and owners of all kinds of structures. The Joseph Dixon Crucible Co. of Jersey City, N. J., will send a copy of the publication to any applicant.

MANUFACTURES AT JAMESTOWN.

To Illustrate Three Centuries of Industrial Growth.

One of the most interesting features of the Jamestown Exposition of 1907 will be the comprehensive illustration of the industrial growth of our country during three centuries. The industrial display will be classified in such groups as manufactures and liberal arts, machinery, transportation, mines and metallurgy, etc. Under the head of manufactures will be exhibited hardware, furniture, watch and clock making, textiles and many others. Under the head of machinery will come a great display of steam engines, various motors, general machinery and machine and arsenal tools. So on down under the various departments will be exhibited all the industries of the country in a concise and intelligent way.

Colonial arts and crafts are to be reproduced at the exposition in an old-time village built for that purpose. The village will comprise eight or nine buildings of colonial architecture, in which metals, woods and fabrics will be wrought by the methods of the early colonists. The various kinds of metal-workers will each have their own building, and the objects of their inventive genius will be turned out day by day. Woodworkers will build chairs, tables, beds, bureaus, washstands and book-cases; in fact, all articles of furniture. There will be a building for the display of textiles, where carpets, rugs, shawls, blankets, table covers and towels will be produced, every process of the manufacturing being shown. This "village of arts and crafts" will recall the past in a most interesting and instructive way, and will also afford a splendid comparison between the old colonial methods and our present-day industries.

The buildings provided to house the exhibits of manufactures, machinery and transportation will be immense in size and beautiful in construction. There will be two splendid buildings of twin proportions, containing 130,000 square feet of exhibit space each. One of these will contain the general manufactures and liberal arts, the other machinery, electricity and transportation, including motor and power devices. Beside these two main buildings, there will be a "village of arts and crafts," already spoken of, a pure-food building and a hall of invention. The pure-food building, an innovation in the former customs of exhibit work, will be a structure built on the colonial style of architecture. Here will be held lectures, demonstrations and other methods showing the wonderful effect that food has on the country at large; in fact, its effect on the entire sociological system.

The hall of modern inventions will also be a feature of novel interest to the visitors of the Ter-Centennial. The plan proposed provides for the erection of a special building to be devoted to the exhibition, exploitation and demonstration of the working of inventions of every description.

INVITED TO TYLER.

Opportunities for Truckers and Fruit Growers in East Texas.

[Special Cor. Manufacturers' Record.]
Tyler, Texas, August 30.

There have been shipped this year from about a dozen counties, comprising that section of our State known as East Texas, over 2000 cars of fruits and vegetables. More than half of this number were shipped from Smith county, which is the heart of the fruit and truck belt, and over

100 more cars were sent out of Tyler than from any other town in Texas with one exception. The 2000 cars were made up as follows: Nearly 100 cars of cabbage, pears, onions, watermelons and mixed vegetables, 26 cars of cantaloupes, 174 cars of strawberries, 811 cars of tomatoes and 882 cars of peaches. If the aggregate amount shipped out by express and by the canning factories were known the total number of cars would easily reach 2500. And yet the fruit and truck industries here are still in their infancy.

Our people do not fully realize the wonderful possibilities of East Texas, where practically everything will grow and flourish. We are 1500 miles nearer than California and 1000 miles closer than Florida to the great central markets of the nation, and I believe we are destined to be their chief suppliers of fruits and vegetables. We need and will welcome experienced growers of fruit and truck to aid us in developing these lucrative industries.

CHARLES HERNDON.

Modern Milling Plant in Tennessee.

The most modern facilities for handling grain and manufacturing it into flour are being provided at Dunlop, Tenn., in the construction of the Dunlop Milling Co.'s plant. This plant replaces the old one destroyed by fire last January. It includes two main buildings three and five stories high, of fireproof construction, with four grain elevators in the rear, three being constructed of steel and one of concrete. These elevators have a capacity of 250,000 bushels. The concrete elevator contract was awarded to the Barnard & Leas Company of Moline, Ill., and is reported as the second of its kind in Tennessee, besides being one of a few in the South. The mill will have a daily capacity of 1000 barrels of flour and 2500 bushels of meal; grists and hominy will also be manufactured. Steam power is used, the boiler and engine rooms having extra high ceilings, so as to insure plenty of natural light and ventilation. Water-tube boilers will furnish the steam, operating 500-horse-power engines built by the Filer & Stowell Company of Milwaukee, Wis. A concrete stack 125 feet high accompanies this plant. The Wolf Company of Chambersburg, Pa., is furnishing the equipment of milling machinery. Shipping facilities are provided by two sidings in front and two in the rear, accommodating about 75 cars. The Dunlop plant is nearly completed and expected to begin operations in about a month.

Big Portland Cement Plant.

One of the several big Portland cement plants which have been under construction in the South is that of the Standard Portland Cement Co. at Leeds, Ala. It is announced that the plant is about completed. It comprises buildings of structural steel throughout. Mr. Frederick H. Lewis, for many years connected with the American cement industry, is engineer in charge, the plant having been built and equipped under his direction. The plant is designed for a unit of six 100-foot kilns, with a total capacity of about 2000 barrels of cement daily, and when the unit is completed will represent the investment of about \$600,000. The organization of the company and its plans for establishing this plant were previously detailed by the MANUFACTURERS' RECORD. The company's main offices are at Charleston, S. C., J. Ross Hanahan of that city being president. Mr. Lewis, the engineer, is also general manager of the company.

It is reported that Mr. G. W. Heard of Hardsville, Ga., is preparing to work a deposit of gold on his property, and that there are deposits of pyrites in the same neighborhood.

FINANCIAL NEWS

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended September 5, 1906.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line of Conn.	100	95	355
At. C. Line of Conn. (half paid)	100	95	305
Georgia Southern & Florida	100	30	30
Georgia Sou. & Fla. 1st Pfd.	100	96	98 1/2
Georgia Sou. & Fla. 2d Pfd.	100	78	80
Maryland & Pennsylvania	100	32 1/2	40
Norfolk Railway & Light	100	25	17 1/2
Seaboard Company Common	100	25 1/2	27
Seaboard Company 1st Pfd.	100	86	90
Seaboard Company 2d Pfd.	100	65	66
United Railways & Elec. Co.	50	14 1/2	14 1/2

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank	100	25 1/2	28
Com. & Far. Nat. Bk. Blue Cfs.	100	140	142 1/2
Drovers & Mech. Nat. Bank	100	240	240
Farmers & Mer. Nat. Bank	40	51	51
First National Bank	100	135	153
Merchants' National Bank	100	178	178
National Bank of Baltimore	100	112	114
National City Bank	100	12 1/2	13
National Marine Bank	30	38	38
National Union Bank of Md.	100	113	113 1/2
Old Town Bank	100	11 1/2	11 1/2
Third National Bank	100	121	123
Western National Bank	20	37	37

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Continental Trust	100	192 1/2	192 1/2
Fidelity & Deposit	50	135	145
Mercantile Trust & Deposit	50	145	145
U. S. Fidelity & Guaranty	100	122	122

Miscellaneous Stocks.	Par.	Bid.	Asked.
Alabama Consol. Coal & Iron	100	70	70
Ala. Consol. Coal & Iron Pfd.	100	100	100
Consol. Cotton Duck Common	50	12 1/2	13 1/2
Consol. Cotton Duck Pfd.	50	37	37
Consolidation Coal	100	94 1/2	95
G. B. & S. Brewing Co.	100	9 1/2	11
George's Creek Coal	100	75	80

Railroad Bonds.	Par.	Bid.	Asked.
Atlanta & Charlotte 1st 7s, 1907	100	101	101 1/2
Atlan. Coast Line 1st Con. 4s, 1952	100	98 1/2	99
Atlantic Coast Line (Conn.) 4s	100	92	92
Carolina Central 4s, 1949	100	96 1/2	97
Charleston & West. Car. 5s, 1916	100	109	109
Char. Col. & Aug. 2d 7s, 1910	100	103	103
Coal & Iron Railway 5s, 1920	100	103	103
Columbia & Greenville 1st 6s, 1916	100	112 1/2	112 1/2
Georgia & Alabama 5s, 1945	100	108 1/2	109 1/2
Georgia, Car. & North, 1st 5s, 1929	100	108 1/2	108 1/2
Georgia Pacific 1st 6s, 1922	100	119	119
Georgia South. & Fla. 1st 5s, 1945	100	109	109
Maryland & Pennsylvania 4s, 1951	100	91	93
Petersburg, Class A 5s, 1926	100	125	125
Petersburg, Class B 6s, 1926	100	103	103
Piedmont & Cum. 1st 5s, 1911	100	113	113 1/2
Potomac Valley 1st 5s, 1941	100	113	113 1/2
Raleigh & Augusta 1st 6s, 1926	100	123	123
Richmond & Danville Gold 6s, 1915	100	112 1/2	112 1/2
Savannah, Fla. & West. 5s, 1934	100	87 1/2	87 1/2
Seaboard Air Line 4s, 1950	100	87	87 1/2
Seaboard Air Line 5s, 10-year, 1911	100	101	102
Seaboard & Roanoke 5s, 1916	100	107	107
Seaboard & Roanoke 5s, 1926	100	107	107
Silver Springs, Ocala & Gulf 4s, 1918	100	96 1/2	96 1/2
Virginia Midland 2d 6s, 1911	100	105	105
Virginia Midland 3d 6s, 1916	100	111	111
Virginia Midland 5th 6s, 1926	100	106	106
Western Maryland new 4s, 1952	100	84	84 1/2
West. North Carolina Con. 6s, 1914	100	115	115
West. Virginia Central 1st 5s, 1911	100	105 1/2	105 1/2
Wilmington, Col. & Aug. 5s, 1910	100	106	106
Wilmington & Wel. Gold 5s, 1935	100	114	114

Street Railway Bonds.	Par.	Bid.	Asked.
Baltimore City Passenger 5s, 1911	100	103 1/2	103 1/2
Baltimore Traction 1st 5s, 1929	100	115	115
Central Ry. Con. 5s (Balt.), 1932	100	112 1/2	112 1/2
Charleston Con. Electric 5s, 1999	97	97 1/2	97 1/2
City & Suburban 5s (Balt.), 1922	100	111 1/2	111 1/2
City & Suburban 5s (Wash.), 1948	100	102 1/2	102 1/2
Lake Roland Elev. 5s (Balt.), 1942	100	113	113
Lexington Railway 1st 5s, 1919	100	102 1/2	102 1/2
Norfolk Railway 5s, 1910	100	89 1/2	89 1/2
United Railways 1st 4s, 1949	100	89 1/2	89 1/2
United Railways Inc. 4s, 1949	100	89 1/2	89 1/2

Miscellaneous Bonds.	Par.	Bid.	Asked.
Alabama Consol. Coal & Iron 5s	91	93 1/2	93 1/2
Consolidated Gas 4 1/2s, Cfs.	99	99 1/2	99 1/2
G. B. & S. Brewing 1st 3-4s	60 1/2	60 1/2	60 1/2
G. B. & S. Brewing 2d Income	37 1/2	38 1/2	38 1/2
Mr. V. & Woodby Cot. Duck 5s	83 1/2	84	84

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending September 3.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	95	95
Alken Mfg. Co. (S. C.)	85	91
Anderson Cotton Mills (S. C.)	100	104
Arkwright Mills (S. C.)	123	123
Augusta Factory (Ga.)	100	85
Avondale Mills (S. C.)	100	100
Belton Mills (S. C.)	105	107
Bibb Mfg. Co. (Ga.)	100	122
Brandon Mills (S. C.)	112	120
Cabarrus Cot. Mills (N. C.) new	120	130
Chadwick Mfg. Co. (N. C.) Pfd.	102	102
Chiquola Mfg. Co. (S. C.)	92	95
Clifton Mfg. Co. (S. C.)	122	125 1/2
Clifton Mfg. Co. (S. C.) Pfd.	103	103
Columbia Mfg. Co. (S. C.)	123	145
Columbus Mfg. Co. (Ga.)	96	101
Courtenay Mfg. Co. (S. C.)	100	100
Dallas Mfg. Co. (Ala.)	92	95
Darlington Mfg. Co. (S. C.)	92	96
Eagle & Phenix Mills (Ga.)	129	130
Easley Cotton Mills (S. C.)	100	100
Enoree Mfg. Co. (S. C.)	80	85
Enoree Mfg. Co. (S. C.) Pfd.	90	101
Enterprise Mfg. Co. (Ga.)	86	92
Exposition Cotton Mills (Ga.)	200	91
Gaffney Mfg. Co. (S. C.)	90	92
Gainesville Cotton Mills (S. C.)	32 1/2	34
Granby Cot. Mills (S. C.) 1st Pfd.	59	61
Graniteville Mfg. Co. (S. C.)	160	165
Greenwood Cotton Mills (S. C.)	93	93
Grendel Mills (S. C.)	112	116
Henrietta Mills (N. C.)	200	200
King Mfg. Co., John P. (Ga.)	97	104
Lancaster Cotton Mills (S. C.)	39	104
Lancaster Cot. Mills (S. C.) Pfd.	97	99
Langley Mfg. Co. (S. C.)	92	96
Laurens Mfg. Co. (S. C.)	166	173
Limestone Mills (N. C.)	115	115
Lockhart Mills (S. C.)	102	102
Lockhart Mills (S. C.) Pfd.	97	100
Louise Mills (N. C.)	90	95
Louise Mills (N. C.) Pfd.	102	102
Marlboro Cotton Mills (S. C.)	78	90

Mayo Mills (N. C.)	165	185
Mills Mfg. Co. (S. C.)	105	110
Mills Mfg. Co. (S. C.) Pfd.	105	105
Monaghan Mills (S. C.)	96 1/2	101
Monarch Cotton Mills (S. C.)	94	101
Newberry Cotton Mills (S. C.)	118	118
Norris Cotton Mills (S. C.)	106	110
Odell Mfg. Co. (N. C.)	75	88
Olympia Cotton Mills (S. C.) Pfd.	80	80
Orangeburg Mfg. Co. (S. C.) Pfd.	80	97
Orr Cotton Mills (S. C.)	103	104
Pacolet Mfg. Co. (S. C.)	190	197 1/2
Pacolet Mfg. Co. (S. C.) Pfd.	100	104
Pelzer Mfg. Co. (S. C.)	170	173
Piedmont Mfg. Co. (S. C.)	167	177
Poe Mfg. Co. (S. C.)	122	125
Richland Cot. Mills (S. C.) Pfd.	51	56
Raleigh Cotton Mills (N. C.)	99	105
Roanoke Mills (N. C.)	106	140
Saxon Mills (S. C.)	103	105
Sibley Mfg. Co. (Ga.)	64	68
Spartan Mills (S. C.)	146	151
Springstein Mills (S. C.)	100	100
Trion Mfg. Co. (Ga.)	142	142
Tucapau Mills (S. C.)	165	165
Victor Mfg. Co. (S. C.)	115	117
Warren Mfg. Co. (S. C.)	97	100
Warren Mfg. Co. (S. C.) 1st Pfd.	105	107
Washington Mills (Va.)	25	25
Washington Mills (Va.) Pfd.	145	145
Whitney Mfg. Co. (S. C.)	145	150
Wiscasset Mills (N. C.)	122	135
Woodruff Cotton Mills (S. C.)	106	111

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending September 3.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	95	95
Aetna Cotton Mills (S. C.) Pfd.	70	70
Alken Mfg. Co. (S. C.)	83	89
American Spinning Co. (S. C.)	129	125
Anderson Cotton Mills (S. C.)	100	106
Arden Mills (S. C.)	87	92
Arkwright Cotton Mills (S. C.)	122	122
Augusta Factory (Ga.)	80	85
Avondale Mills (Ala.)	100	100
Belton Mills (S. C.)	105	108
Bibb Mfg. Co. (Ga.)	115	115
Brandon Mills (S. C.)	117	120
Brown Mills (S. C.)	77	80
Cabarrus Cotton Mills (S. C.)	120	120
Chadwick Mfg. Co. (N. C.) Pfd.	102	102
Chiquola Mfg. Co. (S. C.)	93	95
Clifton Mfg. Co. (S. C.)	120	125
Clifton Mfg. Co. (S. C.) Pfd.	103	103
Clinton Cotton Mills (S. C.)	140	145
Columbus Mfg. Co. (Ga.)	94	97
Courtenay Mfg. Co. (S. C.)	100	100
Darlington Mfg. Co. (S. C.)	90	90
Darlington Mfg. Co. (S. C.) Pfd.	93	93
D. E. Converse Co. (S. C.)	117	117
Eagle & Phenix Mills (Ga.)	129	129
Easley Cotton Mills (S. C.)	130	136
Enoree Mfg. Co. (S. C.)	82	89
Enoree Mfg. Co. (S. C.) Pfd.	100	103
Enterprise Mfg. Co. (Ga.)	82	90
Exposition Cotton Mills (Ga.)	174	200
Gaffney Mfg. Co. (S. C.)	90	95
Gainesville Cotton Mills (S. C.)	35	35
Glenwood Cotton Mills (S. C.)	102	104
Gluck Mills (S. C.)	92	94
Granby Cot. Mills (S. C.) 1st Pfd.	50	50
Graniteville Mfg. Co. (S. C.)	155	165
Greenwood Cotton Mills (S. C.)	92	98
Grendel Mills (S. C.)	110	114
Henrietta Mills (N. C.)	200	200
Imman Mills (S. C.)	95	97
King Mfg. Co., J. P. (Ga.)	97	103
Lancaster Cotton Mills (S. C.)	102	110
Lancaster Cot. Mills (S. C.) Pfd.	95	99
Langley Mfg. Co. (S. C.)	92	96
Laurens Mills (S. C.)	165	175
Limestone Mills (S. C.)	104	104
Lockhart Mills (S. C.)	99	103
Lockhart Mills (S. C.) Pfd.	90	103
Loray Cotton Mills (N. C.) Pfd.	80	95
Louise Mills (N. C.)	90	95
Louise Mills (N. C.) Pfd.	102	102
Marlboro Cotton Mills (S. C.)	84	84
Mayo Mills (N. C.)	150	200
Mills Mfg. Co. (S. C.)	99	100
Mills Mfg. Co. (S. C.) Pfd.	99	101
Monarch Cotton Mills (S. C.)	87	95
Monarch Cotton Mills (S. C.) Pfd.	90	90
Newberry Cotton Mills (S. C.)	115	115
Ninety-Six Cotton Mills (S. C.)	92	97
Norris Cotton Mills (S. C.)	106	106
Odell Mfg. Co. (N. C.)	75	80
Orangeburg Mfg. Co. (S. C.) Pfd.	80	80
Orr Cotton Mills (S. C.)	100	104
Pacolet Mfg. Co. (S. C.)	190	190
Pacolet Mfg. Co. (S. C.) Pfd.	102	104
Pelzer Mfg. Co. (S. C.)	167	175
Piedmont Mfg. Co. (S. C.)	167	167
Poe Mfg. Co. (S. C.)	120	125
Raleigh Cotton Mills (N. C.)	100	100
Richland Cot. Mills (S. C.) Pfd.	50	50
Roanoke Mills (N. C.)	118	118
Saxon Mills (S. C.)	104	106
Sibley Mfg. Co. (Ga.)	64	65
Spartan Mills (S. C.)	146	150
Springstein Mills (S. C.)	100	100
Trion Mfg. Co. (Ga.)	142	140
Tucapau Mills (S. C.)	165	165
Victor Mfg. Co. (S. C.)	115	115
Warren Mfg. Co. (S. C.)	97	100
Warren Mfg. Co. (S. C.) Pfd.	105	107
Washington Mills (Va.)	25	25
Washington Mills (Va.) Pfd.	140	145
Whitney Mfg. Co. (S. C.)	145	150
Wiscasset Mills (N. C.)	119	119
Woodruff Cotton Mills (S. C.)	105	107

Currency Reform.

In their September Bulletin Fiske & Robinson, bankers, of New York, discussing the need of currency legislation, say:

"There has been a material modification of financial views in all parts of the country during the past 10 years. All sections are now qualified through knowledge and inclined through necessity to insist that their representatives, irrespective of party affiliations or traditions, give careful attention to this great non-partisan problem

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